The psychological impact of intragenerational social class mobility

Jason N. Houle *

The Pennsylvania State University, Department of Sociology & Population Research Institute, United States

ABSTRACT

This study revisits and extends a classic question in sociology and tests three competing hypotheses about the effects of intragenerational social class mobility on distress and psychological well-being at midlife. Prior research on this topic investigated the effects of intergenerational mobility, but did not look at how mobility during adulthood (intragenerational mobility) affects psychological distress and well-being. Previous literature is also limited by methodological problems that make it difficult to estimate the separate effects of prior social class, current social class, and social mobility. This study overcomes this methodological problem using a novel approach that breaks the linear dependence between prior class, current class, and intragenerational mobility. After accounting for prior and current class, I find that social mobility is not associated with psychological distress and self-acceptance. Instead, mobile individuals come to resemble their nonmobile counterparts in their current class on the outcomes of study.

© 2010 Elsevier Inc. All rights reserved.

1. Introduction

A rich body of sociological research shows an inverse association between adult social class and mental health outcomes (e.g. Hollingshead and Redlich, 1958; Kessler and Cleary, 1980; Turner et al., 1995, see McLeod and Nonnemaker, 1999; Yu and Williams, 1999 for review). Class differences go beyond fine-grade rankings of occupations. Indeed, there are mental health differences across broad social classes, which are typically differentiated according to ownership, skill-level, and whether one performs physical or mental labor (Erikson and Goldthorpe, 2002; Wright, 1976). Class divisions therefore represent broad distinctions between employers and employees, white and blue collar, those who work with their hands and those who work with their minds, and the gap in prestige, power, and economic rewards between these occupational categories.

Much of the research on social class and mental health provides snapshots of how current class position affects contemporaneous or future adult mental health (George, 2007). But missing from most studies is the recognition that social class can change over the adult life course and that changing social class positions may have its own consequences for mental health. The exception to this general pattern is the literature on the psychological impact of social class mobility in recent qualitative work (Newman, 1999) and an older, quantitative literature, known as "mobility effects research" (e.g. Bean et al., 1973; Blau, 1956; Hollingshead et al., 1954; Jackson and Curtis, 1972; Kessin, 1971; Sorokin, 1959; Turner, 1968; Wegner, 1973). Unfortunately, the quantitative investigation of the topic stalled because of a longstanding methodological challenge that prevents the estimation of mobility effects. Because class mobility is linearly dependent on prior social class and current class (as the simple difference between the two), research to date has not been able to untangle the independent effects of prior social class, current social class, and class mobility for mental health. Thus prior findings and conclusions about the effects of mobility are questionable. Moreover, prior quantitative research focused almost exclusively on the effects of *inter*generational mobility. The current study uses a novel approach that overcomes this problem, extends the quantitative

---

* Address: Department of Sociology, The Pennsylvania State University, 211 Oswald Tower, University Park, PA 16802, United States.
   E-mail address: jnh143@psu.edu

study of mobility effects to *intra*generational mobility, and provides new insight on a classic and important question in the sociological literature.

The theoretical literature on mobility effects offers three hypotheses about the psychological impact of social class mobility. The first suggests that class mobility of any kind creates permanent feelings of anxiety, strain, and distress because mobile individuals can never become fully accustomed to life in a new and alien class position (Sorokin, 1959). Another hypothesis emphasizes the *direction* of mobility, and suggests that downward class mobility leads individuals to suffer feelings of self-blame, distress, and personal failure (Newman, 1999). A final hypothesis posits that class mobility has no effect on mental health, but rather mobile individuals' mental health is primarily shaped by the conditions of their current social class (Blau, 1956).

This study addresses the limitations of prior research and asks how intragenerational class mobility influences mental health and well-being at midlife. To overcome the methodological limitations of prior research, I use methods that were developed for mobility effects research but not implemented in the study of class mobility and mental health (Sobel, 1981, 1985) and data from the Wisconsin Longitudinal Study (WLS), a prospective longitudinal study of Wisconsin high school graduates from the class of 1957. The WLS is an ideal data set for this issue, because it follows a cohort throughout their adult careers, allowing me to examine changes in achieved social class over the adult career its potential consequences for psychological distress and self-acceptance at midlife. The findings of this study are informative for understanding how achieved social class position and intragenerational mobility shape mental health.

2. Intragenerational social mobility and mental health

Social class mobility can occur as people transition from their parents' class to their achieved class (*inter*generational mobility) or during adulthood as careers advance or decline (*intra*generational mobility). Class mobility reflects more than just a simple job or career change. It represents movement across broad social class divisions leading to losses (i.e., downward mobility) or gains (i.e. upward mobility) in social class position and the rewards, resources, and prestige associated with those positions. Even when defined in such a strict manner, intragenerational class mobility is not uncommon; estimates show that 50–75% of Americans experience intragenerational (or career) class mobility in their lifetimes, and upward mobility is more common than downward mobility (Allmendinger, 1989; Diprete, 2002; Featherman and Hauser, 1978; Haller et al., 1985; Kerckhoff et al., 1985; Sorensen, 1975).[1]

Class mobility is a potentially stressful transition that exposes individuals to new social class positions and environments that have different norms, expected behaviors, and cultures (Sorokin, 1959). Those who fall from prestigious white collar positions to lower status blue collar positions not only lose status, power, and prestige, but they also must become accustomed to life in a different and unfamiliar social environment. As such, sociologists have long questioned whether or not changing social class influences mental health and psychological well-being. Methodological problems notwithstanding, prior research on this topic has been limited to studying *inter*generational mobility (mobility across generations) rather than *intra*generational mobility. Intragenerational mobility may be especially important for adult mental health because it represents changes in achieved social class position, rather than changes relative to parents' class position, and is tied to successes and failures in one's own career. For example, prior research shows that perceived successes and failures in one's own career have profound effects on mental health, well-being, and feelings of self-worth at midlife (Carr, 1997; Neugarten, 1968). But very little is known about how intragenerational class mobility impacts mental health at midlife.
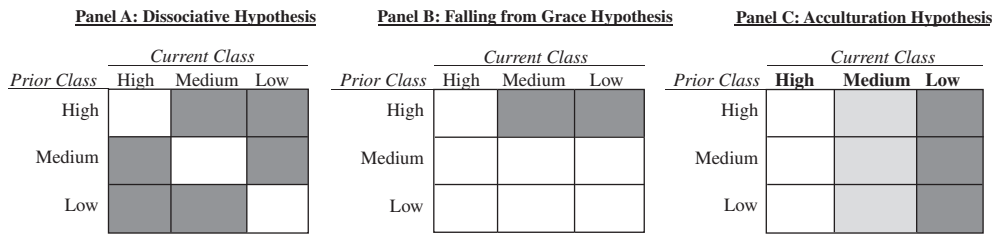
3. Mobility effects: theoretical hypotheses

The current thinking on the psychological impact of social class mobility falls into three distinct hypotheses, but they share some commonalities. All of the hypotheses are rooted in Sorokin's (1959) writings on the effects of mobility, which sparked numerous quantitative and qualitative studies on the psychological impact of social mobility. Each perspective also shares the assumption that social class and mobility are causes, rather than consequences, of mental health.[2] These three hypotheses are: the dissociative hypothesis, the Falling from Grace hypothesis, and the acculturation hypothesis. Fig. 1 presents three conceptual diagrams of the expected relationship between mobility and mental health, one for each hypothesis. The rows represent a person's prior social class and the columns their current social class. The shaded cells indicate those who are expected to suffer from high psychological distress and low self-acceptance.

3.1. The dissociative hypothesis: social mobility creates chronic strain

The dissociative hypothesis predicts that social class mobility has a direct, causal effect on psychological distress and well-being, above and beyond the effects of one's prior and current social class. According to this perspective, any changes in social class—up or down—are taxing because mobile individuals are uprooted from the position they are most familiar

---

[1] By way of comparison, nearly 70% of the population experiences intergenerational mobility (Erikson and Goldthorpe, 1992; Krymkowski and Krauze, 1992), and some evidence suggests that this rate is increasing (Hauser et al., 2000).

[2] In other words, these perspectives differ from selection and social drift hypotheses, which presume poor mental health causes social class attainment and downward social mobility (see Fox, 1990).

Fig. 1. Hypothesized associations between prior social class, current social class, social mobility, and mental health.

with, and have difficulty adjusting to their new class position, never fully become accustomed to the norms, values, and expected behaviors of their current social class (Ellis and Lane, 1967; Hollingshead et al., 1954; Sorokin, 1959). In turn, the socially mobile are expected to suffer from psychological strain that creates *permanent* negative effects on mental health and well-being (Lipset and Bendix, 1964; Sorokin, 1959). As shown in Panel A of Fig. 1, the dissociative hypothesis predicts that those in the off-diagonal (the socially mobile) are predicted to have greater distress and lower self-acceptance than their nonmobile counterparts.

Sorokin's classic sociological hypothesis assumes that change is stressful, and thus shares similarities with stress theory (e.g. Pearlin, 1989) and the notion that stressful life events—especially those that create lasting chronic strain—are problematic for mental health (Holmes and Rahe, 1967; Pearlin, 1989; Turner et al., 1995; Wheaton, 1994). Similar to Sorokin's predictions, early stress theory hypothesized that social mobility is inherently stressful and increases the risk of physical and mental illnesses (Holmes and Rahe, 1967; House, 1974), above and beyond other co-occurring stressful or major life events (Pearlin, 1989).

Most early tests of the dissociative hypothesis focused on *inter*-rather than *intra*generational mobility, despite the fact that Sorokin's original theory made explicit references to mobility during adulthood (see Sorokin, 1959, pp. 508–510).[3] However, all of this research and its subsequent conclusions regarding the effects of mobility are limited by the problem of linear dependence (Hendrickx et al., 1993; Hope, 1975; Sobel, 1981, 1985; Winship and Harding, 2008). No research to my knowledge has successfully tested the dissociative hypothesis for intragenerational mobility. Related research hints that social mobility may be stressful and potentially damaging to mental health. For instance, studies show that job relocation and change can create stress, disrupt family life (Munton, 1990), and increase the risk of psychological distress (Martin, 1999). However, its not clear from this research whether changes in social class position, rather than changes in jobs, are associated with diminished mental health.

3.2. The Falling from Grace hypothesis: the psychological impact of downward mobility

The Falling from Grace hypothesis refines Sorokin's hypothesis and predicts that only downward intragenerational class mobility is detrimental to mental health, especially in social and historical contexts that foster high social expectations for economic success (Newman, 1999). Downward class mobility is traditionally defined as mobility out of white-collar professional occupations to occupations that offer less social status, authority, and fewer rewards (Erikson and Goldthorpe, 1992). Downward mobility often entails an involuntary loss of achieved status, and signals a failure to live up to social expectations of individual success. In turn, it is assumed that the downwardly mobile never become accustomed to life in their new social class, are unsure how to reverse their fall, and suffer from lasting feelings of failure, self blame and distress (Newman, 1999). According to this hypothesis, distress created from downward mobility continues long after the initial job loss and re-employment in a lower status position, "leaving scars in the form of unfulfilled expectations and lurking fears" (Newman, 1999, p. 85).[4] In other words, it is not the later lowered social class position, but the free fall itself that disrupts later psychological well-being. Thus, this hypothesis views downward class mobility as a negative and uncontrollable life event that thwarts goals and expectations, and in turn has long term consequences for mental health and well-being. The predictions of the Falling from Grace hypothesis are shown in Panel B of Fig. 1. Those who are downwardly mobile from white-collar professional classes are expected to report greater distress and lower self-acceptance than their nonmobile and upwardly mobile counterparts.

The predictions of this hypothesis are similar to stress theory and research, which demonstrates that negative and uncontrollable life events, especially those that interfere with life goals, are damaging to mental health, whereas positive events or

---

[3] The dissociative hypothesis has not been supported in studies of intergenerational mobility, outside of bivariate correlations (Ellis and Lane, 1967; Hollingshead et al., 1954; Kessin, 1971; Turner, 1968). After accounting for origin and destination social class, intergenerational mobility is not associated with mental health (Bean et al., 1973; Blau, 1956; Jackson and Curtis, 1972; Wegner, 1973).

[4] A growing body of literature has shown that unemployment and job loss are associated with diminished mental health (see Burgard et al., 2007; Kessler et al., 1989; Wheaton 1990), but that mental health rebounds upon re-employment (Kessler et al., 1989). But while getting a new job may alleviate the negative effects of job loss, its not clear whether those who become re-employed in a lower social class position are able to rebound in the same way.

those entered into by choice have little impact on mental health (e.g. Dohrenwend, 2000; Thoits, 1983; Wheaton, 1990). Thus, while upward mobility is typically a positive life event, downward mobility is more likely to be negative, involuntary, and have negative consequences for mental health.

Some recent research using samples of socially mobile respondents provides tentative evidence for this hypothesis. A recent qualitative study shows that downwardly mobile white-collar professionals in the 1990s, but not downwardly mobile blue collar workers, suffered from poor mental health due to the former group's belief that mobility was an individual tragedy resulting from their own failures (Newman, 1999). Similarly, Dooley and colleagues (2000) show that mobility from adequate (full-time, decent wages) to inadequate work (involuntary part-time, low wage work) is associated with increased depressive symptoms. Other research shows that farmers who lose their farms and are forced into lower status jobs suffer from elevated psychological distress (Swisher et al., 1998).

Its not clear from the above research whether or not the elevated distress of the downwardly mobile is an effect of their downward mobility or the result of landing in a lower social class that carries greater psychological burdens for all of those who inhabit it. Prior research shows that individuals who currently inhabit lower social class positions suffer from higher levels of psychological distress (e.g. Kessler and Cleary, 1980; Miech and Shanahan, 2000) and feel more negatively about their life's accomplishments (Grossbaum and Bates, 2002; Marmot et al., 1997; Ryff et al., 1999) than those in higher social class positions. Thus, it is necessary to account for the confounding effects of prior and current social class on mental health to determine if mobility—meaning the experience of change itself—is associated with mental health (Blalock, 1967).

3.3. The acculturation hypothesis: the importance of current social class

A final hypothesis predicts that social class mobility is unrelated to psychological distress and well-being, but instead the mental health of the socially mobile is primarily a function of the social class position that they land in. The acculturation hypothesis (Blau, 1956) contradicts the above two hypotheses and predicts that socially mobile individuals will come to experience similar levels of distress and well-being as those who share their current social class position. Unlike the above perspectives, it posits that mobile individuals easily cope with the transition from one social class to another, and have little trouble assimilating into their new class position. Instead, this hypothesis focuses on the class they join as the key predictor of mobile individuals' psychological well-being. As shown in Panel C of Fig. 1, the acculturation hypothesis predicts an inverse relationship between current social class and mental health, whereby those in lower social class positions are expected to report greater psychological distress and lower self-acceptance. Mobile individuals' distress and well-being is expected to be similar to others in their current, rather than their prior, social class position.

The predictions of this classic hypothesis resonate with modern research and theory about social class differences in mental health. According to stress theory and research, social class differences in mental health are driven by class differences in stress exposure and access to personal and social resources that would otherwise help buffer the effects of stress for mental health (e.g. Kessler, 1979; McLeod and Kessler, 1990; Turner and Avison, 2003; Turner et al., 1995). Although the socially mobile may bring resources from their prior social class position,[5] it is likely that the stresses, strains, and resources they presently face in their current social class position are most germane for their day-to-day emotional well-being. Therefore, their mental health will more closely resemble those in their current (rather than prior) social class position.

Prior research shows some support for the acculturation hypothesis when investigating the psychological impact of intergenerational mobility (e.g. Ellis and Lane, 1967; Jackson and Curtis, 1972; Kessin, 1971), although it's important to once again note that these findings are questionable because the above studies could not adequately disentangle the effects of class mobility from the effects of current social class. Moreover, no research to my knowledge has focused on intragenerational class mobility.[6] Related research on social class differences in mental health shows that current social class is more predictive of current mental health than past social class position (e.g. Eaton et al., 2001), its not clear whether the mental health of socially mobile people more closely resembles the mental health of people in their prior or current class.

3.4. Limitations of prior research

As noted above, each of these above hypotheses appear to have some support in the literature. However, past research can only offer limited evidence because of two problems. The first is an inability to disentangle the effects of mobility from the effects of current social class. The second is a lack of control variables that would rule out alternative explanations for the findings.

To distinguish amongst the different ways in which mobility may influence mental health, one must compare mobile and nonmobile individuals. Research that only examines the mental health of the socially mobile (i.e. Newman, 1999; Dooley et al., 2000) cannot separate the effects of mobility from current social class, and thus cannot determine whether their findings support the mobility effects or acculturation hypotheses. Making this needed comparison, however, is no easy task.

---

[5] I thank an anonymous reviewer for this valuable insight.

[6] Related research on children whose families are upwardly mobile suggests support for the acculturation hypothesis. For example, Costello and colleagues (2003) showed that Native American youth who were upwardly mobile out of poverty reported levels of psychopathology and distress that more closely resembled other youth in their destination (current) social position than youth who remained in poverty at follow-up.

For decades, mobility effects researchers have puzzled over a methodological problem that arises when trying to simultaneously estimate the effects of prior social class, current social class, and social mobility. Previous attempts to disentangle the effects of mobility are limited by the linear dependence of mobility with prior and current social class (Hendrickx et al., 1993; Hope, 1975; Sobel, 1981, 1985). Linear dependence occurs when two or more independent variables are linear transformations of one another and are perfectly collinear.[7] Mobility is mathematically the simple difference between prior and current social class, as demonstrated by the panels in Fig. 1. Therefore, it is not possible to model the effects of prior class, current class, and mobility in a traditional regression framework where prior class, current class, and mobility are included as independent predictors (or where mobility is modeled as the interaction of prior and current class) (Hendrickx et al., 1993; Hope, 1975; Sobel, 1981, 1985). Despite this fact, research today still continues to attempt to model mobility effects in this fashion. For example, some studies suggest that social mobility affects mental health (Tiffin et al., 2005) and physical health (Waitzman and Smith, 1994) net of the effects of prior and current social class position. But the conclusions of these studies, and any claims about the effects of mobility (or lack thereof), are unsubstantiated because these studies are statistically unable to model the effects of mobility with the methods they use (Hendrickx et al., 1993; Hope, 1975; Sobel, 1981, 1985).

Finally, stringent controls are necessary to meet the assumptions of the mobility effects hypotheses and many studies do not meet these criteria. Three primary assumptions of the dissociative and Falling from Grace hypotheses are: (1) the effects of mobility on mental health are permanent rather than temporary (Newman, 1999; Sorokin, 1959); (2) the effects of mobility on mental health are direct and not spurious; and (3) social mobility is a cause rather than a consequence of mental health. To ensure the above assumptions are met, research must account for job tenure (or length of time) in current social class position and factors that may render the mobility-distress relationship spurious, such as sociodemographic variables and co-occurring stressors. Stressors and stressful life events rarely occur in isolation and failing to account for these experiences yields misleading associations between mobility and mental health, because it assumes that mobile and nonmobile individuals are equal in their exposure to other stressors[8] (Pearlin, 1989). Finally, researchers need to guard against problems related to selection into mobility and reverse causality whereby poor early mental health causes social mobility or job loss (i.e. the social drift hypothesis) (see Fox, 1990). Prior studies have not controlled for mental health prior to mobility.

3.5. The current study: social mobility for the "Happy Days" Cohort

To study the effects of intragenerational mobility requires copious amounts of data that track people over their adult careers and provide sufficient information on subsequent mental health. Such data are now available for a cohort that reached the peak of their careers in the 1990's. Born in the late 1930's, this cohort came of age and entered the labor market in the late 1950's, a time when economic expansion and the industrial transition away from agriculture created an increase in the supply of prestigious white-collar jobs and high rates of upward inter- and intragenerational social mobility (Blau and Duncan, 1967; Duncan, 1965; Featherman and Hauser, 1978). The relatively small size of the cohort also contributed to its upward mobility, leading to less crowded schools, little competition in the labor market, and rapid career advancement (Easterlin, 1978, 1987).

As they entered their careers, this cohort had great optimism about the future and had high expectations for success and upward mobility (Riesman, 1961). Images of upward mobility and expanding opportunities permeated the culture, touting white-collar middle class jobs as the ultimate marker of economic success and prestige (Mills, 1953; Whyte, 1956). Those who achieved these goals were held in high esteem because they validated meritocratic ideals of hard work and success. Failing to do so was seen as the result of individual faults (Kluegel and Smith, 1986; Mills, 1953; Newman, 1999). But during the peaks of their careers in the 1980's and 1990's, deindustrialization, global competition, and corporate downsizing slowed the pace of economic expansion and led to an increase in downward mobility and job loss (Hout, 1988; McBrier and Wilson, 2004; Strobel, 1993). White collar workers, who traditionally enjoyed job security, faced for the first time an increased risk of job loss and downward mobility (Smith and Rubin, 1997; Spalter-Roth and Deitch, 1999) and many of those who lost their jobs were forced to settle for re-employment in lower status positions (Brand, 2005; Lippman and Rosenthal, 2008). Like Americans today, this cohort was socialized to believe in the American Dream and had high expectations for upward mobility, but their careers were ultimately shaped by the economic realities of their time. At present, many fear that similar trends are under foot with the current economic crisis. During the past 2 years, downward mobility has increased, putting millions of Americans who are at the peak of their careers at risk of losing their jobs, homes, and social class position.

The experiences of this late 1930's birth cohort can help shed light on the psychological impact of intragenerational social class mobility. Using data from this cohort, this study builds on past research to make two primary contributions to the mobility effects literature. First, I extend the quantitative study of mobility effects to intragenerational class mobility, filling an important gap in this literature. Second, I am able to test three competing perspectives about the association between mobility and mental health because I compare socially mobile respondents to their nonmobile counterparts in their prior and current social class. To do this I use Diagonal Mobility Models (Sobel, 1981, 1985), which break the linear dependence

---

[7] This same problem plagues studies of age-period-cohort effects in demography because age is linearly dependent on period (survey year) and cohort (birth year) (i.e. Period = Cohort + Age).

[8] There is also a risk of over controlling if class mobility causes other stressful life events, such as marital dissolution. Therefore, I run models with and without variables most likely to be affected by class mobility (i.e. marital disruption and health conditions), but the substantive conclusions remain the same.

between prior class, current class, and mobility by making a plausible theory-based assumption. Finally, I include statistical controls to ensure that the relationship between mobility and mental health is not influenced by other factors.

4. Data and methods

4.1. Data

The Wisconsin Longitudinal Study (WLS) is a prospective cohort study of 10,317 randomly selected men and women who graduated high school in Wisconsin in 1957. The WLS respondents are considered to be representative of non-Hispanic white American high school graduates in the late 1950's (WLS Handbook, 2006).

I utilize data from the 1957, 1975, and 1992–1993 follow-up surveys. Respondents were approximately 36 years old in 1975, when prior social class is measured, and 52–53 years old during the 1992–1993 wave of data collection when current social class is measured. Therefore, current social class is measured when respondents had likely reached their-peak occupational attainment, and are unlikely to have retired.[9] Akin to classic mobility studies (e.g. Blau and Duncan, 1967; Featherman and Hauser, 1978), and given that only about one third of women in this cohort worked consistently throughout adulthood, I restrict analysis to the intragenerational mobility of men.[10] The final analytic sample is 4992 men.

I use multiple imputation to replace missing data. Multiple imputation has several advantages over other strategies of handling missing data and provides unbiased estimates for standard errors (Acock, 2005, p. 1020). Multiple imputation replaces missing values with predictions based on information observed in the sample and accounts for random uncertainty across each imputed dataset (Acock, 2005; Rubin, 1987). Prediction models are based on data from all waves of the Wisconsin Longitudinal Study, including data from respondents and parents collected in high school. Data are imputed using the "ICE" program in Stata 9.0 (Royston, 2005). I average results across six multiply imputed samples and account for uncertainty in the predictions by adjusting the standard errors for variations across imputations (Rubin, 1987). The multiply imputed results presented here are not substantively or statistically different from results using listwise deletion and are available upon request.

4.2. Measures

4.2.1. Psychological distress

I assess psychological distress using the WLS's modified version of the Center for Epidemiologic Studies Depression (CES-D) scale (Radloff, 1977). The CES-D scale has been used widely as a general measure of psychological distress, and has excellent psychometric properties (Roberts and Vernon, 1983; Weissman et al., 1977). In the 1992–1993 mail survey follow-up, respondents answered a series of 2 questions that asked how many days in the past week (0–7) they experienced a variety of depressive symptoms. These symptoms include how often "you could not shake the blues," "feel bothered by things that usually did not bother you," "think your life had been a failure," "felt happy" (reverse coded [RC]), "people were unfriendly," "you enjoyed life" (RC), "had crying spells," "feel people disliked you," "feel sad," "feel depressed," "have trouble keeping your mind on what you were doing," "feel like not eating or have a poor appetite," "feel just as good as other people" (RC), "everything you did was an effort," "feel hopeful about the future" (RC), "feel fearful," "sleep restlessly," "talk less than usual," and "feel you could not get going." Responses to each item were added, such that the final CES-D scale ranges from 0 to 110 (α = .88). Due to the extreme right skewness of the scale, the CES-D scale was transformed using a started log (i.e. $\ln(\text{CES-D}) + k$, where k is a constant) (MacLean and Hauser, 2000; Miech and Shanahan, 2000) with the "lnskew0" command in STATA. With a constant (k) of 2.64, the started log of the CES-D scale has a distribution that is approximately normal, ranging from .927 to 4.72 with a mean of 2.68 and a standard deviation of .69. For ease of comparisons across outcomes, I standardize the started log of the CES-D scale to have a mean of 0 and use the standardized measure of psychological distress as the dependent variable.[11]

4.2.2. Self-acceptance

I measure how individuals feel about their life and accomplishments by utilizing the self-acceptance subscale of Ryff's (1989) psychological well-being scale. The self-acceptance scale is a validated measure of a central dimension of psychological well being (Ryff, 1989; Ryff and Keyes, 1995). Self-acceptance is an integral part of one's overall psychological well-being and indicates the extent to which one has positive attitudes towards their accomplishments in life. Individuals who score high tend to have positive attitudes about themselves, accept their good and bad qualities, and generally feel positive about

---

[9] Only 7% of men and women in the WLS sample had retired by age 52–53 (Hauser et al., 1994).

[10] Though studying the mobility of women is an important venture, it is beyond the scope of this study, especially in the historical period in which this data is drawn. Women in this cohort were much less likely to be the primary breadwinners in the family, and their social status was more likely to be determined by the status of their husbands (Goldthorpe, 1983).

[11] Controversy exists over operationalizing depressive symptoms using the CES-D scale. Some scholars advocate our approach (Mirowsky and Ross, 2002), while others advocate dichotomizing the variable to identify those who suffer from severe emotional distress. The latter approach reduces variance on the dependent variable and presumes that anyone who falls below the cut-point is mentally healthy. Thus, I use the continuous logged measure of psychological distress to capture the full range of psychological distress experienced by respondents in the sample.

Table 1

1970 Census Major Occupational Groups as mapped onto the Revised EGP Schema. *Source*: Erikson and Goldthorpe (1992); US Bureau of the Census.

	EGP Schema		1970 Major Census Occupational Groups
I	Service Class: professionals, administrators and managers; higher-grade technicians; supervisors of non-manual workers	I	(1) Professional, technical and kindred (salaried); (2) Managers, officials, and proprietors (salaried); *x*
II	Routine Non-manual workers: employees in administration and commerce; sales personnel; other rank and file service workers	II	(3–4) Sales workers, retail and non-retail; (5) clerical and kindred workers
III	Petty bourgeoisie: small proprietors and artisans, etc., with and without employees	III	(6) Self-employed professional, technical and kindred; (7) self-employed managers, officials and proprietors
IV	Farm: farmers and smallholders and other self-employed workers in primary production	IV	(8) Farmers and farm managers
V	Skilled Manual: lower grade technicians; supervisors of manual workers; skilled manual workers	V	(9–11) Craftsmen, foremen, and kindred workers: manufacturing, construction, and other; (12–13) operatives, manufacturing and other
VI	Unskilled Manual: semi- and unskilled manual workers; agricultural laborers and other workers in primary production	VI	(14) Service and private household; (15–16) laborers, manufacturing and other; (17) farm laborers *x*

their past accomplishments and their life. Low scorers tend to be unsatisfied with themselves and their accomplishments in the past and wish things were different than they currently are (Ryff, 1989, p. 1072).

In the 1992–1993 mail survey, WLS respondents were asked to respond on a six point scale (1 = Agree Strongly, 6 = Disagree Strongly) to what extent they agreed that they felt: (1) "like many of the people you know have gotten more out of life than you have;" (2) "confident and positive about yourself" (RC); (3) "when you compare yourself to friends and acquaintances, it makes you feel good about who you are" (RC); (4) "your attitude about yourself is probably not as positive as most people feel about themselves;" (5) "you made some mistakes in the past, but you feel that all in all everything has worked out for the best" (RC); (6) "the past has had its ups and downs, but in general, you wouldn't want to change it" (RC); (7) "in many ways you feel disappointed about your achievements in life." Individual responses on each item were summed (α = .80), resulting in a scale ranging from 2 to 42 (mean: 32.72; standard deviation: 6.17). For ease of comparison across outcomes, I standardize the self-acceptance subscale to have a mean of 0 and a standard deviation of 1 and use the standardized measure of self-acceptance as the dependent variable.

4.2.3. Prior class, current class, and mobility variables

Prior social class is based on respondent's report of his occupation in 1975, when he is approximately 36 years old. Current class is based on respondent's primary occupation (or last held job) in 1992–1993, when he is approximately 52 years old. Occupation in 1975 and 1992–1993 were categorized by the WLS into 1970 Major Census Occupational Groups (US Bureau of the Census, 1984; Featherman and Stevens, 1982). To create prior and current classes, I use a collapsed, six-class version of the Erikson–Goldthorpe–Portocarero class schema. (Erikson and Goldthorpe, 1992: Appendix Table 2, Erikson et al., 1979). The six classes are Service (labeled as class I), Routine Non-manual (II), Petty Bourgeoisie[12] (III), Farm (IV), Skilled Manual (V), and Unskilled Manual (VI). Table 1 illustrates how individuals were mapped on the EGP schema based on their major occupational group.

4.2.4. Intragenerational mobility

I construct three dummy variables to characterize intragenerational mobility and ensure that the nonmobile are the primary reference group in all analyses. The first captures downward mobility from the middle class resulting from involuntary job loss. It indicates movement out of the Service (Professional) Class or the Petty Bourgeoisie into the Routine Non-manual, Farm, Skilled Manual, or Unskilled Manual classes[13] among those who left their prior occupational status due to involuntary termination, including business downsizing/closing, financial/economic reasons or "other involuntary termination reasons". A second dummy variable captures upward mobility out of the Routine Non-manual, Farm, Skilled Manual, or Unskilled Manual classes to the Service (Professional class) or the Petty Bourgeoisie (1 = yes). Finally, I construct a dummy variable that indicates all other forms of intragenerational class mobility, which captures horizontal and voluntary downward class mobility (Erikson and Goldthorpe, 1992; Erikson et al., 1979). Because the EGP classes are broad, mobility across classes represent a significant shifts in occupational status, rather than small job changes, and therefore provide a conservative test of the effects of changing jobs, but aligns with Sorokin's theoretical emphasis on change in social class.

4.2.5. Control variables

To guard against spuriousness I include control variables that are correlated with both mobility and psychological distress. Control variables include the following variables measured prior to mobility: depression history, marital status, cognitive ability (human capital), and educational attainment. I also include other factors occurring simultaneously with

---

[12] The Petty Bourgeoisie are defined as self-employed or small-business owners with or without employees (Erikson et al., 1979).

[13] Though the EGP schema is not considered to be strictly hierarchical, Erikson and Goldthorpe define downward mobility as movement out of the Service or Professional Class (Clifford and Heath, 1993; Erikson et al., 1979). Persons classified as Petty Bourgeoisie in this sample are similar to Service Class professionals, with the exception of being self employed (see Table 1).

Table 2
Variable descriptive statistics. *Source*: Wisconsin Longitudinal Study.

	Mean	SD
Mental health and psychological well-being		
Started log of CES-D scale (standardized)	.003	.995
Self-acceptance scale (standardized)	.032	1.004
Prior social class (1975)		
Service Class (Professionals)	.407	
Routine Non-manual workers	.118	
Petty Bourgeoisie	.072	
Farmers	.034	
Skilled laborers	.314	
Unskilled laborers	.055	
Current social class (1992–1993)		
Service Class (Professionals)	.397	
Routine Non-manual workers	.135	
Petty Bourgeoisie	.097	
Farmers	.029	
Skilled laborers	.271	
Unskilled laborers	.071	
Mobility variables (64% nonmobile)		
Downward mobility from professional classes	.027	
Upward mobility	.088	
Other mobility (1 = mobile)	.241	
Controls		
Marital status in 1975 (1 = married)	.898	
Cognitive ability	102.248	15.285
Depressive symptoms prior to 1975 (1 = yes)	.032	
Education in years prior to 1975	13.961	2.412
Employment status in 1992–1993 (1 = unemployed)	.072	
Major illness or injury in past 5 years (1 = yes)	.300	
Health condition that limits work or causes job loss (1 = yes)	.111	
Years in current social class	16.178	9.969
Death of child in past 5 years (1 = yes)	.008	
Death of spouse in past 5 years (1 = yes)	.004	
Divorce or separation in past 5 years (1 = yes)	.029	

N = 4992.

mobility that are likely correlated with both mobility and mental health: years in current occupational status, health conditions that limit work, employment status, and recent stressful life events.

Prior bouts with depression is a dummy variable equal to 1 if the respondent experienced a bout of depression lasting two weeks or more before 1975, according to a series of retrospective questions collected in the 1992–1993 survey (Carr, 1997). Education is measured in years in 1975. Marital status is a dummy variable equal to 1 if the respondent was married at the 1975 survey. High school cognitive ability is measured using the Henmon–Nelson test scores when they were in their junior year in high school, which the WLS mapped onto IQ scores. To account for the effect of unemployment on mental health (Kessler et al., 1989), I control for contemporary employment status in 1992–1993 (1 = unemployed). To account for effects of health-related downward mobility (Fox, 1990), I include a dummy variable equal to 1 if a respondent left their job due to a health condition from 1975 to 1993 or if they had a health condition that limited their ability to work. I also include a variable that indicates the number of years the respondent has been employed in their current or last occupational status to ensure that any observed differences between the nonmobile and mobile are not influenced by the length of time that they are exposed to the conditions of their current social class.[14] Additionally, I include controls for four major stressful life events experienced in the five years prior to the measurement of mental health: divorce or separation (1 = yes), death of a spouse (1 = yes) death of a child (1 = yes), and major illness or injury (1 = yes). These events were selected because they are ranked as requiring the highest degree of social readjustment (Holmes and Rahe, 1967).

4.3. Analytic strategy

To model the impact of mobility on psychological outcomes I use Sobel's (1981, 1985) Diagonal Mobility Models because they are the only acceptable method to model mobility effects (e.g. Breen, 2001; Marshall and Firth, 1999; Nieuwbeerta et al., 2000). Past research has utilized linear additive (Blalock, 1967) or Square Additive (Duncan, 1966) approaches to model the effects of prior class, current class, and mobility. The linear additive approach uses a regression framework to model mobility effects as either additive (i.e. *Y* = Prior Class + Current Class + (Prior Class – Current Class) or interactive (*Y* = Prior

---

[14] I thank an anonymous reviewer for this valuable insight.

Table 3
Mean psychological distress (logged and standardized) by prior (1975) and current (1992–1993) social class. *Source*: Wisconsin Longitudinal Study.

1975 Social class	Service Class (I)	Routine Non-manual (II)	Petty Bourgeoisie (III)	Farm (IV)	Skilled Manual (V)	Unskilled Manual (VI)	Row Means
Service Class (I)	-.050 (1270)	−.003 (220)	−.075 (194)	.309 (15)	.002 (105)	−.262 (34)	−.040 (1838)
Routine Non-manual (II)	.047 (183)	-.053 (252)	−.303 (62)	.005 (10)	−.143 (80)	.190 (18)	−.053 (605)
Petty Bourgeoisie (III)	.007 (93)	−.037 (46)	-.052 (155)	.637 (10)	.028 (66)	−.013 (18)	−.016 (388)
Farm (IV)	−.556 (12)	−.245 (15)	−.308 (07)	.253 (100)	.376 (47)	.163 (19)	.173 (200)
Skilled Manual (V)	−.072 (240)	.027 (116)	.075 (72)	−.005 (35)	.085 (1041)	.061 (141)	.053 (1645)
Unskilled Manual (VI)	.033 (27)	−.229 (19)	.090 (12)	−.439 (08)	.387 (110)	-.040 (140)	.072 (316)
Column Means	−.037 (1826)	−.030 (668)	−.076 (502)	.222 (177)	.086 (1450)	−.009 (369)	
							N = 4992

Numbers in parentheses indicate number of respondents in each cell of the mobility table. Shaded cells indicate means for the nonmobile.

Class + Current Class + Prior ∗ Current). This approach yields unidentified models because of linear dependence (Mobility = Current Class − Prior Class). (Hendrickx et al., 1993; Hope, 1975; Sobel, 1981). The Square Additive method uses ANOVA techniques to attempt to estimate the independent effects of prior class, current class, and social mobility for a given outcome variable. But the Square Additive approach is also unable to identify the effects of mobility, because the main effects for prior and current class also contain certain types of mobility effects (Hendrickx et al., 1993; Hope, 1975; Sobel, 1981; Sobel, 1985).

Diagonal Mobility Models solve the identification problem by making the assumption that the primary referents for mobile individuals are the nonmobile or permanent members of a given occupational status. This assumption is reasonable and theory-based since the nonmobile members of the class are the most valid comparison group as it is these individuals who make up the "core of the class" (De Graaf et al., 1995) and bear the characteristics of that class more than anyone else (Sorokin, 1959, pp. 509–510).

Diagonal Mobility Models simultaneously estimate mobility effects and provide a point estimate for the extent to which mobile individuals resemble the nonmobile members of their prior or current social class. Mobile individuals' psychological well-being is modeled as the weighted sum of the nonmobile individuals from both their prior and current classes (Sobel, 1981, 1985) to reflect their resemblance to both groups. The functional form of the diagonal model is as follows:

$$Y_i = q\mu_j + (1 - q)\mu_k + e_{ij} \tag{1}$$

$$Y_i = q\mu_j + (1 - q)\mu_k + \beta_{m1}\text{MOB1} + \beta_{m2}\text{MOB2} + e_{ij} \tag{2}$$

$$q + (1 - q) = 1 \tag{3}$$

Table 4
Mean self-acceptance (standardized) by prior (1975) and current (1992–1993) social class. *Source*: Wisconsin Longitudinal Study.

1975 Social class	Service Class (I)	Routine Non-manual (II)	Petty Bourgeoisie (III)	Farm (VI)	Skilled Manual (V)	Unskilled Manual (VI)	Row means
Service Class (I)	.12 (1270)	.02 (220)	.13 (194)	−.23 (15)	.07 (105)	.04 (34)	.10 (1838)
Routine Non-manual (II)	.04 (183)	.02 (252)	.22 (62)	−.02 (10)	−.08 (80)	.15 (18)	.04 (605)
Petty Bourgeoisie (III)	.18 (93)	−.14 (46)	.28 (155)	−.13 (10)	.13 (66)	.13 (18)	.16 (388)
Farm (IV)	.06 (12)	−.28 (15)	−.77 (07)	-.40 (100)	−.29 (47)	−.08 (19)	−.32 (200)
Skilled Manual (V)	.04 (240)	−.18 (116)	0.01 (72)	−.37 (35)	-.14 (1041)	.07 (141)	−.09 (1645)
Unskilled Manual (VI)	−.17 (27)	−.04 (19)	.11 (12)	−.64 (08)	−.30 (110)	.03 (140)	−.12 (316)
Column Means	.10 (1826)	−.04 (668)	.16 (502)	−.35 (177)	−.12 (1450)	.05 (369)	
							N = 4992

Numbers in parentheses indicate number of respondents in each cell of the mobility table. Shaded cells indicate means for the nonmobile.

Table 5
Estimates from Diagonal Mobility Models predicting logged psychological distress.

	Model 1	Model 2	Model 3
Prior and current class weights			
Prior class (social class in 1975) weight $(1 - q)$	.019	.085	.147
	(.291)	(.356)	(.412)
Current class (social class in 1992–1993) weight (q)	.981***	.915**	.853*
	(.291)	(.356)	(.412)
Mobility variables (nonmobile = reference group)			
Downward mobility from professional classes		.170	.166
		(.115)	(.110)
Upward mobility		−.046	−.033
		(.085)	(.068)
Other mobility		−.017	−.017
		(.052)	(.047)
Control variables			
Marital status in 1975 (l = married)	−.102†	−.105†	−.096†
	(.062)	(.062)	(.060)
Cognitive ability (human capital)	−.004**	−.004**	−.004**
	(.001)	(.001)	(.001)
Education in years prior to 1975	.001	−.001	.000
	(.009)	(.010)	(.009)
Depressive symptoms prior to 1975 (l = yes)	.773***	.779***	.790***
	(.120)	(.120)	(.114)
Years in current social class	−.001	−.001	—
	(.002)	(.002)	
Unemployed in 1992–1993 (l = yes)	.162*	.162*	.161*
	(.070)	(.070)	(.070)
Health condition that limits work or causes job loss (l = yes)	.353***	.354***	.364***
	(.059)	(.060)	(.059)
Illness or injury in past 5 years	.183***	.183***	.184***
	(.039)	(.039)	(.039)
Death of child in past 5 years	.156	.164	.157
	(.194)	(.194)	(.197)
Death of spouse in past 5 years	.428	.441	.462
	(.282)	(.282)	(.282)
Divorce/separation in past 5 years	.306***	.309**	.289**
	(.105)	(.105)	(.108)
AIC	8769	8773	8772
BIC	−2772	−2743	−2752
Degrees of freedom	19	22	21
N = 4992			

Note: standard errors in parentheses.
* $p \leqslant .05$.
** $p \leqslant .01$.
*** $p \leqslant .001$.
† $p \leqslant .10$.

where Y is the outcome of psychological distress or self-acceptance, μ_j is the estimated mean outcome for nonmobile members of their current class j, μ_k is the estimated mean outcome for nonmobile members of their prior class k,[15] q is a point estimate of the resemblance of mobile individuals to their current class, $(1 - q)$ is a point estimate of the resemblance of mobile individuals to their prior class, MOB1 and MOB2 are two dummy variables capturing specific forms of mobility, and βmX is the estimated effect of mobility for psychological distress or self-acceptance. Eq. (1) is a simple model with no mobility effects included. This model provides an estimate of the degree to which mobile individuals resemble those in their prior or current class with regard to outcome Y, captured in q and $(1 - q)$. Thus, these parameters provide the test for the acculturation hypothesis. As noted in Eq.(3), q and $1 - q$ are bounded by the value of 1 such that q and $1 - q$ reflect the percentage of influence one's current class (q) or prior class $(1 - q)$ has on psychological distress or self-acceptance. The inclusion of mobility variables in Eq. (2) captures the effects of mobility above and beyond the effects of prior and current class. Diagonal Mobility Models are estimated using the Diagonal Reference (DREF) subcommand of the General Nonlinear Models (GNM) package in R (Turner and Firth, 2007).

I first present the bivariate associations between mobility and psychological distress and self-acceptance in Tables 3 and 4, respectively. Table 5 shows coefficients from Diagonal Mobility Models predicting psychological distress and Table 6 provides results predicting self-acceptance. Each outcome is predicted with three models. Model 1 includes only prior class and

---

[15] It is important to note that μ_j and μ_k are estimated means, *not* sample means. For more discussion see (Sobel, 1981, p. 1899).

Table 6
Estimates from Diagonal Mobility Models predicting self-acceptance.

	Model 1	Model 2	Model 3
Prior and current class weights			
Prior class (social class in 1975) weight $(1 - q)$	.343**	.438*	542*
	(.114)	(.184)	(.264)
Current class (social class in 1992–1993) weight (q)	.657***	.562**	.458†
	(.114)	(.184)	(.264)
Mobility variables (nonmobile = reference group)			
Downward mobility from professional classes		−.112	−.141
		(.130)	(.096)
Upward mobility		.042	.029
		(.093)	(.066)
Other mobility		.029	.002
		(.041)	(.039)
Control variables			
Marital Status in 1975 (l = married)	.233***	.235***	.224***
	(.063)	(.064)	(.064)
Cognitive ability (human capital)	−.001	−.001	−.001
	(.001)	(.001)	(.002)
Education in years prior to 1975	.013	.013†	.013
	(.008)	(.008)	(.009)
Depressive symptoms prior to 1975 (l = yes)	−.603***	−.608***	−.578***
	(.130)	(.130)	(.128)
Years in current social class	.003	.003	—
	(.002)	(.002)	
Unemployed in 1993 (l = yes)	−.105†	−.102†	−062
	(.055)	(.055)	(.067)
Health condition that limits work or causes job loss (l = yes)	−.307***	−.308***	−.328***
	(.053)	(.053)	(.052)
Illness or injury in past 5 years	−.150***	−.150***	−.135**
	(.033)	(.033)	(.045)
Death of child in past 5 years	−.246	−.251	−.2261
	(.217)	(.216)	(.218)
Death of spouse in past 5 years	−.173	−.176	−.273
	(.334)	(.335)	(.427)
Divorce/separation in past 5 years	−.234*	−.234*	−.266**
	(.109)	(.108)	(.101)
AIC	13,920	13,920	13,908
BIC	−4553	−4523	−4522
Degrees of freedom	19	22	21
N = 4992			

Note: standard errors in parentheses.
* $p \leqslant .05$.
** $p \leqslant .01$.
*** $p \leqslant .001$.
† $p \leqslant .10$.

current class weights with all controls, which is the primary test for the acculturation hypothesis. Model 2 adds the mobility variables. Model 3 is a supplementary model that includes all controls except for number of years in their current occupational status. All models include the estimated means for each mental health outcome for stayers in each class, the primary reference groups in Diagonal Mobility Models. These estimates are similar to the bivariate means presented in Tables 3 and 4, are not shown due to space constraints (they are available upon request). I use Bayesian Information Criterion (BIC) (Raftery, 1995) and Akaike Information Crtierion (AIC) (Akaike, 1974) to determine the best fitting models.

5. Results

I begin by reporting descriptive statistics for the variables of study. As shown in Table 2, in 1975 most of the respondents were Service Class professionals (40.7%) and Skilled Manual laborers (31.4%). Approximately 12% of respondents were Routine Non-manual workers in 1975, 7.2% were Petty Bourgeoisie, 5.5% were Unskilled Manual laborers, and 3.4% were Farmers. Class categories in 1992–1993 show similar patterns. Though the class percentages are similar, these descriptives suggest some level of intragenerational mobility between 1975 and 1992–1993.

As expected, downward mobility out of the Service Class or Petty Bourgeoisie was a relatively rare phenomenon in this sample. As shown in Table 2, the majority of respondents (64%) in the sample were nonmobile, while 2.7% experienced downward mobility resulting from involuntary job loss. Nine percent were upwardly mobile, and 24% of the sample

experienced other forms of mobility. Among respondents who were initially in the Service Class, approximately 7% were downwardly mobile, and the vast majority (69%) was nonmobile. Among those initially in the Petty Bourgeoisie Class, 7% were downwardly mobile while 41% were nonmobile.

5.1. Bivariate patterns

Next, I present mobility tables illustrating the bivariate relationship between mobility and standardized, logged psychological distress and standardized self-acceptance in Tables 3 and 4, respectively. The shaded boxes in the table show the mean scores for the nonmobile in their respective class statuses. These estimates are the basis of comparison for mobile individuals in Diagonal Mobility Models.

Table 3 provides information on psychological distress across the combinations of prior and current social class categories. Among the nonmobile, Farmers tend to report the highest level of distress (.253), followed by Skilled Manual laborers (.085), Unskilled Manual laborers (−.040), Routine Non-manual workers (−.053), Petty Bourgeoisie (−.052), and Service Class professionals (−.050). On average, those in the lowest class categories report the highest level of distress. The bivariate tables also provide preliminary evidence for the hypotheses of study. For example, when comparing downwardly mobile individuals to their nonmobile counterparts, Table 3 shows little evidence for a negative effect of mobility on psychological distress. On average, those who are downwardly mobile from the Service Class or Petty Bourgeoisie report levels of psychological distress that fall between the stayers in their prior and current class. For instance, those who are downwardly mobile from the Service Class to Skilled Manual labor positions report an average standardized CES-D score of .002—a number that falls between the average psychological distress for stayers in the Service Class (−.050) and Skilled Manual labor class (.085).

Table 4 shows average self-acceptance scores by prior and current class. These descriptive findings show a positive correlation between self-acceptance and social class, with those in the lower classes reporting the lowest levels of self-acceptance. Among nonmobile respondents, Farmers tend to report the lowest levels of (standardized) self-acceptance (−.40) followed by Skilled Manual laborers (−.14), Routine Non-manual workers (.02), Unskilled Manual laborers (.03), Service Class professionals (.12), and Petty Bourgeoisie (.28). Much like the results for psychological distress, these bivariate results suggest little evidence that downward mobility is associated with lower levels of self-acceptance. With few exceptions, the downwardly mobile report levels of self-acceptance that fall between the nonmobile individuals in their respective prior and current classes. Overall, these preliminary findings tend to suggest evidence for an acculturation hypothesis rather than a mobility effects hypothesis. Psychological distress and self-acceptance among the downwardly mobile do not exceed those in their prior and current classes.

5.2. Multivariate results

5.2.1. Psychological distress

Model 1 in Table 5 displays estimates for the baseline model without any mobility variables, and provides point estimates for the relative influence of prior and current social class. This model provides strong support for the acculturation hypothesis and shows that current social class is more important than prior social class for mobile individuals' psychological distress. In fact, the current class weight ($q = .981$) is close to 1 and considerably larger than the prior class weight ($1 − q = .019$). The prior class weight is indistinguishable from 0, suggesting that prior social class does not contribute to variation in psychological distress among mobile individuals. On average, mobile individuals tend to report levels of psychological distress almost perfectly resemble those in their current rather than their prior social class.

Model 2 adds the mobility variables to the model. There is very little support for the dissociative or Falling from Grace hypotheses. Upward mobility ($B = −.046$, SE = .085) and horizontal mobility ($B = −.017$, SE = .052) are not associated with psychological distress net of prior class, current class, and controls. Involuntary downward mobility is also not associated with psychological distress ($B = .170$, SE = .115) regardless of whether or not statistical controls are included in the model (analyses not shown but available upon request).[16] Additional analyses that switched the reference group to be the upwardly mobile reveal that the downwardly mobile are no more likely to be distressed than their upwardly mobile counterparts (results available upon request). To test if the effects of mobility on distress are temporary, additional models were estimated that included an interaction between mobility and years in current occupational status. These interactions were non-significant (results available upon request). Finally, the AIC and BIC statistics provide strong evidence that model 1 is the best fitting model and that the addition of mobility variables does not improve model fit. Taken together, these findings show that individuals who are socially mobile are not significantly more distressed than those in their prior and current social class, but rather report levels of psychological distress that more closely match those who share their current social class position.

The control variable for number of years in the current class proves to be interesting. When the number of years in the current class is controlled (i.e. Models 1 or 2), the current class weight (q) is larger and more significant than when the number of years in the current class variable is omitted (Model 3). Substantively this suggests that socially mobile individuals

---

[16] Models that used two dummy variables to separate the downwardly mobile from the Service class and the downwardly mobile from the Petty bourgeoisie were also non-significant and the coefficients were very close to zero.

come to resemble those in their current class the longer they are in that new class. The other control variables operate as expected.

5.2.2. Self-acceptance

Table 6 shows the results for self-acceptance. The patterns are quite similar to those for psychological distress, and support the acculturation hypothesis. First, the prior and current class weights in Model 1 suggest that mobile individuals are twice as likely to report levels of self-acceptance that resemble those in their current class ($q = .657$) than their prior class ($1 - q = .394$). Second, none of the mobility coefficients are significant in Model 2. These findings are robust across additional analyses that shift the reference category to be the upwardly mobile and that add an interaction between mobility and years in the current occupational status (results not shown but available upon request). In addition, the model fit statistics indicate that Model 1 provides a significantly better fit to the data than Model 2.

Finally, the importance of one's current class for self-acceptance is further revealed by a comparison of the prior and current class weights in models with (Models 1 and 2) and without (Model 3) controls for the length of time spent in the current class. The effect of one's current class is even larger in the model that controls for number of years in current class, suggesting that mobile individual's self-acceptance comes to resemble those in their current social class the longer they are in their new class position.

In sum, I find no support for the dissociative or Falling from Grace hypotheses. Mobile individuals, net of prior and current class and controls, do not exhibit significantly higher levels of psychological distress, or significantly lower levels of self-acceptance than their nonmobile counterparts. Instead, these findings lend support to the acculturation hypothesis. Socially mobile people report levels of psychological distress and feelings about their accomplishments in life that resemble those in their current class.

6. Discussion

Understanding how social mobility shapes mental health is a long-standing interest in sociology, beginning with Sorokin's classic work *Social Mobility* (1959). But unfortunately, research in this area has been stunted due to a methodological puzzle that has prevented scholars' ability to simultaneously identify the effects of prior social class, current social class, and mobility. This study uses a novel approach to address this issue, and builds on the mobility effects literature by examining the psychological impact of intragenerational social mobility over the adult career. After accounting for prior and current social class and other critical control variables I find no evidence that social class mobility leads to greater psychological distress or lower self-acceptance. Instead, and in support of the acculturation hypothesis, I find that mobile individuals tend to resemble those in their current rather than prior class status on the outcomes of psychological distress and self-acceptance. Thus, this study shows that the socially mobile acculturate to their current social class: the upwardly mobile share the benefits of those who permanently reside in privileged positions, while the downwardly mobile incur the mental health risks of those who permanently inhabit low social class positions. Insofar that the socially mobile are distressed and have poor psychological functioning, it results from the experiences of their current social class, not their mobility, per se.

This study has several strengths. First, it expands the classic mobility effects literature to study *intra*generational mobility. Prior mobility effects research has focused almost exclusively on *inter*generational mobility, despite the fact that the theory emphasizes the importance of social mobility across adult career for mental health (see Sorokin, 1959, pp. 509–510). By using longitudinal data from the WLS, this study was able to address previously unanswered questions about the psychological impact of intragenerational mobility. WLS respondents were followed throughout their entire adult career making it possible to examine mental health differences between socially mobile and nonmobile respondents near the end of their occupational careers, after they have reached their peak career potential. Second, the prospective design also makes it possible to account for factors over the adult career that may render the association between mobility and psychological outcomes spurious. Finally, this study provides a simultaneous test of the dissociative, Falling from Grace, and acculturation hypotheses by comparing the psychological well-being of the socially mobile to those in their prior and current social classes using Diagonal Mobility Models (Sobel, 1981, 1985). In doing so, it overcomes the shortcomings of prior research that was unable to disentangle the effects of mobility from prior and current social class.

This study is not, however, without limitations. Although the study greatly benefits from the inclusion of depression prior to mobility, the measure itself is somewhat limited. It is based on a single retrospective question in the 1992–1993 survey wave that asks respondents when and if they had depressive episodes lasting two weeks or more. But the bias due to memory recall may actually yield conservative estimates about the effects of intragenerational class mobility. If respondents are remembering past experiences of depression in reference to more recent experiences of current psychological distress, then the measure of prior depressive symptoms should operate to deflate the association between mobility and current psychological distress (see Ross, 1989; Schacter, 2001 for a review of literature on consistency bias in memory recall). This study also cannot control for self-acceptance prior to mobility because the WLS did not ascertain this data prior to 1992–1993. Finally, the interpretation of the findings is limited to white male Wisconsin high school graduates who graduated high school in 1957 given the original study design.

Further research is needed to better understand the applicability of these findings to other cohorts (Janson and Saphire, 1993) or across different economic cycles. For instance, the Falling from Grace hypothesis predicts that those born into eco-

nomically prosperous times may be more likely to experience distress after becoming downwardly mobility versus those born into less prosperous times (Newman, 1999). Without cohort comparisons, it is unclear whether the effects of downward mobility depend upon the broader economic context.

This study revisits an important theoretical question and provides new evidence about how intragenerational social mobility shapes psychological distress and self-acceptance, but the results here appear at odds with qualitative mobility effects research that richly describes how upward and downward class mobility impacts psychological well-being (e.g. Bettie, 2002, 2003; Jones, 2003, 2004; Newman, 1999; Ryan and Sackrey, 1996). I would suggest, however, that these results are not incongruous. Instead, I would argue that the qualitative work on this topic is describing the acculturation *process* by which mobile individuals acculturate and become acclimated to their current social class. Indeed, this study suggests that acculturation is a process, and that the more time mobile individuals spend in their current social class, the more their mental health comes to resemble that of others who share their current class position (see Model 2, Tables 5 and 6). Therefore the rich qualitative descriptions documenting the psychological struggles of the socially mobile could be capturing the stresses and strains of the acculturation process and the changes that mobile individuals experience as they face for the first time stresses, strains, fears, and anxieties endemic of their current social class position. Finding support for the acculturation hypothesis should not be framed as a null finding (as it has in the past (e.g. Jackson and Curtis, 1972)), but rather as a signal of a complex process by which mobile individuals become accustomed to and learn to navigate the barriers inherent in their current social class.

The process of acculturation may also have important implications for population mental health in light of the current state of social mobility in the United States. Over the past several decades, economic inequality and downward class mobility have risen dramatically. These trends have accelerated as the recent economic crisis has put millions of previously affluent Americans at risk of losing their jobs, home, and experiencing downward class mobility. But because the downwardly mobile are not immune to the mental health risks of their current social class, rising rates of downward mobility will place more individuals and families at risk of being exposed to the stresses and strains of a more disadvantaged social class position. Ultimately, as more people are exposed to the stresses of low social class during their adult lifetimes, rising rates of downward mobility may undermine population mental health.

Understanding how social mobility impacts mental health and well-being is methodologically challenging. But such issues are important for understanding social class differences in mental health in socially mobile societies where families and individuals constantly climb up and slip down the social class ladder. Future research should strive to be methodologically rigorous, integrate both qualitative and quantitative work, and continue to explore the processes by which the socially mobile are shaped by the forces of their prior and current social class positions.

Acknowledgements

References

Acock, A.C., 2005. Working with missing values. Journal of Marriage and the Family 67, 1012–1028.
Akaike, H., 1974. A new look at the statistical model identification. IEEE Transactions on Automatic Control 19, 716–723.
Allmendinger, J., 1989. Career Mobility Dynamics: A Comparative Analysis of the United States, Norway, and West Germany. Max Planck Institut fur Bildungsforschung, Berlin.
Bean, F., Bonjean, C.M., Burton, M.G., 1973. Intergenerational occupational mobility and alienation. Social Forces 52, 63–73.
Bettie, J., 2002. Exceptions to the rule: upwardly mobile white and Mexican American high school girls. Gender and Society 16, 403–422.
Bettie, J., 2003. Women Without Class: Girls, Race, and Identity. University of California Press, Berkeley, CA.
Blalock, H.M., 1967. Status inconsistency, social mobility, status integration and structural effects. American Sociological Review 32, 790–801.
Blau, P.M., 1956. Social mobility and interpersonal relations. American Sociological Review 21, 290–295.
Blau, P.M., Duncan, O.D., 1967. The American Occupational Structure. The Free Press, New York.
Brand, J.E., 2005. The effects of job displacement on job quality: findings from the Wisconsin longitudinal study. Research on Social Stratification and Mobility 24, 275–298.
Breen, R., 2001. Social mobility and constitutional and political preferences in Northern Ireland. British Journal of Sociology 52, 621–645.
Burgard, S.A., Brand, J.E., House, J.S., 2007. Toward a better estimation of the effect of job loss on health. Journal of Health and Social Behavior 48, 369–384.
Carr, D., 1997. The fulfillment of career dreams at midlife: does it matter for women's mental health? Journal of Health and Social Behavior 38, 331–344.
Census, U.S.B.o.t., 1984. Part II. Population Census Concepts Public Use Samples of Basic Records from the 1970 Census: Description and Technical Documentation. Commerce, U.S.D.o., Washington, DC, pp. 152–154.
Clifford, P., Heath, A., 1993. The political consequences of social-mobility. Journal of the Royal Statistical Society Series a-Statistics in Society 156, 51–61.

Costello, J.E., Compton, S.N., Keeler, G., Angold, A., 2003. Relationships between poverty and psychopathology: A natural experiment. Journal of the American Medical Association 290, 2023–2029.

De Graaf, N.D., Nieuwbeerta, P., Heath, A., 1995. Class mobility and political preferences – individual and contextual effects. American Journal of Sociology 100, 997–1027.

Diprete, T.A., 2002. Life course risks, mobility regimes, and mobility consequences: a comparison of Sweden, Germany, and the United States. American Journal of Sociology 108, 267–309.

Dohrenwend, B.P., 2000. The role of adversity and stress in psychopathology: some evidence and its implications for theory and research. Journal of Health and Social Behavior 41, 1–19.

Dooley, D., Prause, J., Ham-Rowbottom, K.A., 2000. Underemployment and depression: longitudinal relationships. Journal of Health and Social Behavior 41, 421–436.

Duncan, O.D., 1965. The trend of occupational mobility in the United States. American Sociological Review 30, 491–498.

Duncan, O.D., 1966. Methodological issues in the analysis of social mobility. In: Smelser, N.J., Lipset, S.M. (Eds.), Social Structure and Mobility in Economic Development. Transaction, New Brunswick, NJ, pp. 51–96.

Easterlin, R.A., 1978. What will 1984 be like? Socioeconomic implications of recent twists in age structure. Demography 15, 397–432.

Easterlin, R.A., 1987. Birth and Fortune: The Impact of Numbers on Personal Welfare. University of Chicago Press, Chicago.

Eaton, W.W., Muntaner, C., Bovasso, G., Smith, C., 2001. Socioeconomic status and depressive syndrome: the role of inter- and intra-generational mobility, government assistance, and work environment. Journal of Health and Social Behavior 42, 1.

Ellis, R., Lane, C., 1967. Social mobility and social isolation: a test of Sorokin's dissociative hypothesis. American Sociological Review 32, 237–253.

Erikson, R., Goldthorpe, J.H., 1992. The Constant Flux: A Study of Class Mobility in Industrial Societies. Clarendon Press, Oxford.

Erikson, R., Goldthorpe, J.H., 2002. Intergenerational inequality: a sociological perspective. The Journal of Economic Perspectives 16, 31–44.

Erikson, R., Goldthorpe, J.H., Portocarero, L., 1979. Intergenerational class mobility in three Western European societies: England, France and Sweden. British Journal of Sociology 30, 415–441.

Featherman, D.L., Hauser, R.M., 1978. Opportunity and Change. Academic Press, New York.

Featherman, D.L., Stevens, G., 1982. A revised socioeconomic index of occupational status: application in analysis of sex differences in attainment. In: Powers, M.G. (Ed.), AAAS Selected Symposium 81 Measures of Socioeconomic Status: Current Issues. Westview, Boulder.

Fox, J.W., 1990. Social class, mental illness, and social mobility: the social selection-drift hypothesis for serious mental illness. Journal of Health and Social Behavior 31, 344–353.

George, L.K., 2007. Life course perspectives on social factors and mental illness. In: Avison, W.R., McLeod, J.D., Pescosolido, B.A. (Eds.), Mental Health, Social Mirror. Springer, New York, pp. 219–237.

Goldthorpe, J.H., 1983. Women and class analysis: In defence of the conventional view. Sociology 17, 465–488.

Grossbaum, M.F., Bates, G.W., 2002. Correlates of psychological well-being at midlife: the role of generativity, agency, and communion, and narrative themes. International Journal of Behavioral Development 26, 120–127.

Haller, M., Konig, W., Krause, P., Kurz, K., 1985. Patterns of career mobility and structural positions in advanced capitalist societies: a comparison of men in Austria, France, and the United States. American Sociological Review 50, 579–603.

Hauser, R.M., Carr, D., Hauser, T.S., Hayes, J., Krecker, M., Kuo, H.-H.D., et al., 1994. The Class of 1957 After 35 Years: Overview and Preliminary Findings. Center for Demography and Ecology Working Papers (93-17). University of Wisconsin-Madison. Madison.

Hauser, R.M., Warren, J.R., Huang, M.-H., Carter, W., 2000. Occupational status, education, and social mobility in the meritocracy. In: Arrow, K., Bowles, S., Durlauf, S. (Eds.), Meritocracy and Economic Inequality. Princeton University Press, Princeton, NJ, pp. 179–229.

Hendrickx, J., De Graaf, N.D., Lammers, J., Ultee, W., 1993. Models for status-inconsistency and mobility – a comparison of the approaches by Hope and Sobel with the mainstream square additive-model. Quality and Quantity 27, 335–352.

Hollingshead, A.B., Redlich, F., 1958. Social Class and Mental Illness: A Community Study. Wiley, New York.

Hollingshead, A., Ellis, R., Kirby, E., 1954. Social mobility and mental illness. American Sociological Review 19, 577–584.

Holmes, T.H., Rahe, R.H., 1967. The social readjustment rating scale. Journal of Psychosomatic Research 11, 213–218.

Hope, K., 1975. Models of status inconsistency and social mobility effects. American Sociological Review 40, 322–343.

House, J.S., 1974. Occupational stress and coronary heart disease: a review and theoretical integration. Journal of Health and Social Behavior 15, 12–27.

Hout, M., 1988. More universalism, less structural mobility: the American occupational structure in the 1980s. The American Journal of Sociology 93, 1358–1400.

Jackson, E.F., Curtis, R.F., 1972. Effects of vertical mobility and status inconsistency: a body of negative evidence. American Sociological Review 37, 701–713.

Janson, P., Saphire, D., 1993. Winning and losing: the effects of social mobility on psychological powerlessness in three depression Era Cohorts. In: Hodge, R.W., Strasser, H. (Eds.), Change and Strain in Social Hierarchies: Theory and Method in the Study of Status Inconsistency. Ajanta, Delhi, India, pp. 322–339.

Jones, S.J., 2003. Complex subjectivities: class, ethnicity, and race in women's narratives of upward mobility. Journal of Social Issues 59, 803–820.

Jones, S.J., 2004. A place Where I Belong: working-class women's pursuit of higher education. Race, Gender and Class 11, 74–93.

Kerckhoff, A.C., Campbell, R.T., Winfield-Laird, I., 1985. Social mobility in Great Britain and the United States. American Journal of Sociology 91, 281–308.

Kessin, K., 1971. Social and psychological consequences of intergenerational occupational mobility. American Journal of Sociology 77, 1–18.

Kessler, R.C., 1979. Stress, social status, and psychological distress. Journal of Health and Social Behavior 20, 259–272.

Kessler, R.C., Cleary, P.D., 1980. Social class and psychological distress. American Sociological Review 45, 463–478.

Kessler, R.C., Turner, J.B., House, J.S., 1989. Unemployment, reemployment, and emotional functioning in a community sample. American Sociological Review 54, 648–657.

Kluegel, J.R., Smith, E.R., 1986. Beliefs About Inequality: Americans' Views of What is and What Ought to Be. Aldine De Gruyter, New York.

Krymkowski, D.H., Krauze, T.K., 1992. Occupational mobility in the year 2000: projections for American men and women. Social Forces 71, 145–157.

Lippman, S., Rosenthal, J.E., 2008. Do displaced workers lose occupational prestige? Social Science Research 37, 642–656.

Lipset, S.M., Bendix, R., 1964. Social Mobility in Industrial Society. University of California Press, Berkeley.

MacLean, A., Hauser, R.M., 2000. Socioeconomic Status and Depression Among Adult Siblings, Center for Demography and Ecology Working Paper Series (CDE Working Paper No. 2000–04). University of Wisconsin-Madison, Madison.

Marmot, M., Ryff, C.D., Bumpass, L.L., Shipley, M., Marks, N.F., 1997. Social inequalities in health: next questions and converging evidence. Social Science and Medicine 44, 901–910.

Marshall, G., Firth, D., 1999. Social mobility and personal satisfaction: evidence from ten countries. British Journal of Sociology 50, 28–48.

Martin, R., 1999. Adjusting to job relocation: relocation preparation can reduce relocation stress. Journal of Occupational and Organizational Psychology 71, 231–235.

McBrier, D.B., Wilson, G., 2004. Going down?: race and downward occupational mobility for White-Collar workers in the 1990s. Work and Occupations 31, 283–322.

McLeod, J.D., Kessler, R.C., 1990. Socioeconomic status differences in vulnerability to undesirable life events. Journal of Health and Social Behavior 21, 162–172.

McLeod, J.D., Nonnemaker, J.M., 1999. Social stratification and inequality. In: Aneshensel, C.S., Phelan, J.C. (Eds.), Handbook of the Sociology of Mental Health. Kluwer Academic/Plenum Publishers, New York, pp. 321–344.

Miech, R.A., Shanahan, M., 2000. Socioeconomic status and depression over the life course. Journal of Health and Social Behavior 41, 162–176.

Mills, C.W., 1953. White Collar: The American Middle Classes. Oxford University Press, New York.

Mirowsky, J., Ross, C.E., 2002. Measurement for a human science. Journal of Health and Social Behavior 43, 152–170.

Munton, A.G., 1990. Job relocation, stress, and the family. Journal of Organizational Behavior 11, 401–406.

Neugarten, B.L., 1968. The awareness of middle age. In: Neugarten, B.L. (Ed.), Middle Age and Aging. University of Chicago Press, Chicago, pp. 93–98.

Newman, K.S., 1999. Falling From Grace. Downward Mobility in the Age of Affluence. University of California Press, Berkeley.

Nieuwbeerta, P., De Graaf, N.D., Ultee, W., 2000. The effects of class mobility on class voting in post-war western industrialized countries. European Sociological Review 16, 327–348.

Pearlin, L., 1989. The sociological study of stress. Journal of Health and Social Behavior 30, 241–256.

Preliminary Wisconsin Longitudinal Study Handbook, 2006. University of Wisconsin-Madison, Madison.

Radloff, L.S., 1977. The CES-D scale: a self-report depression scale for research in the general population. Applied Psychological Measurement 1, 385–401.

Raftery, A.E., 1995. Bayesian model selection in social research. Sociological Methodology 25, 111–163.

Riesman, D., 1961. The Lonely Crowd: A Study of the Changing American Character. Yale University Press, New Haven.

Roberts, R.E., Vernon, S.W., 1983. The center for epidemiologic studies depression scale: its use in a community sample. American Journal of Psychiatry 140, 41–46.

Ross, M., 1989. Relation of implicit theories to the construction of personal histories. Psychological Review 96, 341–357.

Royston, P., 2005. Multiple imputation of missing values: update. The Stata Journal 5, 1–14.

Rubin, D., 1987. Multiple Imputation for Non-Response in Surveys. Wiley, New York.

Ryan, J., Sackrey, C., 1996. Strangers in Paradise: Academics from the Working Class. University Press of America, Lanham.

Ryff, C.D., 1989. Happiness is everything, or is it? exploration of the meaning of psychological well-being. Journal of Personality and Social Psychology 57, 1069–1081.

Ryff, C.D., Keyes, C.L.M., 1995. The structure of psychological well-being revisited. Journal of Personality and Social Psychology 69, 719–727.

Ryff, C.D., Magee, W., Kling, K.C., Wing, E.H., 1999. Forging macro–micro linkages in the study of psychological well-being. In: Ryff, C.D., Marshall, V.W. (Eds.), The Self and Society in Aging Processes. Springer, New York, pp. 247–278.

Schacter, D., 2001. The Seven Sins of Memory: How the Mind Forgets and Remembers. Houghton-Mifflin, Boston.

Smith, B.T., Rubin, B.A., 1997. From displacement to reemployment: job acquisition in the flexible economy. Social Science Research 26, 282–308.

Sobel, M.E., 1981. Diagonal mobility models: a substantively motivated class of designs for the analysis of mobility effects. American Sociological Review 46, 893–906.

Sobel, M.E., 1985. Social mobility and fertility revisited: some new models for the analysis of the mobility effects hypothesis. American Sociological Review 50, 699–712.

Sorensen, A.B., 1975. The structure of intragenerational mobility. American Sociological Review 40, 456–471.

Sorokin, P.A., 1959. Social and Cultural Mobility. Free Press, Glencoe, IL.

Spalter-Roth, R., Deitch, C., 1999. "I Don't Feel Right Sized; I feel Out-of-Work Sized": gender, race, ethnicity, and the unequal costs of displacement. Work and Occupations 26, 446–482.

Strobel, F., 1993. Upward Dreams, Downward Mobility: The Economic Decline of the American Middle Class. Rowman and Littlefield, Lanham, MD.

Swisher, R.R., Elder, G.H.J., Conger, R., 1998. The long arm of the farm: how an occupation structures exposure and vulnerability to stressors across role domains. Journal of Health and Social Behavior 39.

Thoits, P.A., 1983. Dimensions of life events that influence psychological distress: an evaluation and synthesis of the literature. In: Kaplan, H. (Ed.), Psychosocial Stress: Trends in Theory and Research. Academic Press, New York.

Tiffin, P.A., Pearce, M.S., Parker, L., 2005. Social mobility over the lifecourse and self-reported mental health at age 50: prospective cohort study. Journal of Epidemiology and Community Health 59, 870–872.

Turner, R.J., 1968. Social mobility and schizophrenia. Journal of Health and Social Behavior 9, 194–201.

Turner, R.J., Avison, W.R., 2003. Status variations in stress exposure: implications for the interpretation of research on race, socioeconomic status, and gender. Journal of Health and Social Behavior 2003, 4.

Turner, H., Firth, D., 2007. GNM Package in R, Version 0.9–2. University of Warwick, Warwick.

Turner, R.J., Wheaton, B., Lloyd, D.A., 1995. The epidemiology of social stress. American Sociological Review 60, 104–125.

Waitzman, N.J., Smith, K.R., 1994. The effects of occupational class transitions on hypertension: racial disparities among working-age men. American Journal of Public Health 84, 945–950.

Wegner, E., 1973. The effects of upward mobility: a study of working-status college students. Sociology of Education 46, 263–279.

Weissman, M.M., Sholomskas, D., Pottenger, M., Prusoff, B.A., Locke, B.Z., 1977. Assessing depressive symptoms in five psychiatric populations: a validation study. Journal of Epidemiology 106, 203–214.

Wheaton, B., 1990. Life transitions, role histories, and mental health. American Sociological Review 55, 209–223.

Wheaton, B., 1994. Sampling the stress universe. In: Avison, W.R., Gotlib, I. (Eds.), Stress and Mental Health: Contemporary Issues and Prospects for the Future. Plenum, New York.

Whyte, W.H.J., 1956. The Organization Man. Simon and Schuster, New York.

Winship, C., Harding, D.J., 2008. A mechanism-based approach to the identification of age-period-cohort models. Sociological Methods and Research 36, 362–401.

Wright, E.O., 1976. Class boundaries in advanced capitalist societies. New Left Review 98, 3–41.

Yu, Y., Williams, D.R., 1999. Socioeconomic status and mental health. In: Aneshensel, C.S., Phelan, J.C. (Eds.), Handbook of the Sociology of Mental Health. Kluwer Academic/Plenum Publishers, New York, pp. 151–166.