
How Adult Children Influence Older Parents' Mental Health: Integrating Stress-process and Life-course Perspectives*

MELISSA A. MILKIE

University of Maryland

ALEX BIERMAN

California State University, Northridge

SCOTT SCHIEMAN

University of Toronto

In this study, we integrate insights from the life-course and stress-process perspectives to argue that adult children's negative treatment of parents, as well as negative events that children experience, detrimentally affect elderly parents' mental health over time. We argue that these strains may affect mothers more than fathers, and blacks more than whites, because of the greater importance of the parental role to these groups in late life. Using data from more than 600 older African American and white parents over a four-year period, we show that negative treatment by adult children is positively related to changes in depression and anger, but effects on depression are limited to black parents and effects on anger are limited to mothers. Adult children becoming ill or unemployed positively relates to changes in distress over time, but only for black parents. Surprisingly, marital dissolution by adult children is related to decreases in anger for black parents. This research indicates that the social-psychological implications of the parental role do not end when children are adults; however, the influence on mental health in old age may vary by social status.

The lives of parents and their children are intertwined in complex ways throughout the life course; events, transitions, and values of each generation have the potential to affect the other in powerful ways. Although many studies show evidence of how experiences with young children affect parents' well-being (Nomaguchi and Milkie 2003; Evenson and Simon 2005; Umberson and Gove 1989), research on the ways that adult children can affect the mental health of their parents is underdeveloped (Allen, Blieszner, and Roberto 2000; Knoester 2003). Research on adult children and parents has focused on intergenerational patterns of contacts and supports (Ryff and Seltzer 1996; Allen, Blieszner, and Roberto 2000; Rossi and Rossi 1990), to the detriment of understanding the influence of adult children's lives on the psychological

well-being of elders. Furthermore, research on how adult children affect older parents' mental health is typically cross-sectional, creating difficulty in asserting causality.

The stress-process model urges scholars to consider that relations between strains and well-being are conditioned on social status (Pearlin 1999). In this analysis, we argue that it is critical to consider the gender and race of older parents to understand the impact of adult children on mental well-being. Gender scholars argue that women may be more closely and deeply connected to others throughout their life courses (Chodorow 1978; Gilligan 1982). African Americans, too, have deep kin ties (Lee, Peek, and Conard 1998; Stack 1974). Moreover, because both women and African Americans have had relatively less power in the workplace and community through their life courses, the impact of children's lives on parental well-being may be stronger among these groups compared with men and whites.

To address these issues, we integrate insights from life-course and stress-process perspectives to assess how adult children

* Direct correspondence to Melissa A. Milkie, Department of Sociology, University of Maryland, 2112 Art-Sociology Building, College Park MD 20742; mmilkie@socy.umd.edu. The study is supported by a National Institute of Aging grant award (AG17461; Leonard I. Pearlin, Principal Investigator).

affect elderly parents' well-being over a four-year period. We analyze a sample of more than 600 African American and white adults 65 and older to document the ways that negative treatment by adult children and the negative events in their children's lives affect changes in elderly parents' levels of depression and anger.

INTEGRATING TWO SOCIAL PSYCHOLOGICAL PERSPECTIVES

Two frameworks have been central to orienting research in social psychology in recent decades: the stress-process perspective (e.g., Pearlin 1999) and the life-course perspective (e.g., Elder, Johnson, and Crosnoe 2003). Each has certain central principles that intertwine to create a more nuanced understanding of the social psychology of aging, especially in regard to how adult children affect older parents' mental health.

In this paper, we will argue that two key components of a life-course perspective aid stress researchers interested in older adults. The first is an emphasis on development as a lifelong process, with the importance of roles established early on as potentially continuing to be important late in life (Elder, Johnson, and Crosnoe 2003). Second, the life-course principle of "linked lives" can push stress-process researchers to examine the effects of eventful stressors of one generation on the mental health of another.

Alternatively, for life-course researchers assessing how earlier roles and experiences reach into old age, two aspects of the stress-process model are useful to consider. First, using typical measures of mental health as outcomes, in addition to other kinds of social psychological aspects of well-being is an advance, given that satisfaction or "success" measures are not equivalent to typical scales of depression and anxiety (Pearlin and Skaff 1996). Second, life-course researchers can benefit from how the stress-process model places fundamental importance on social statuses as conditioning the relationships between stressors and outcomes. Specifically, those examining life-course processes may profit from more formally considering social status markers of SES, race and gender,

among others, in conceptual work and empirical research.

Earlier important works have focused on conceptual integrations of these life-course and stress-process frameworks (George 1999; Pearlin and Skaff 1996; Pearlin et al. 2005). For example, George (1999) offers artful ideas centered on traumatic stress and on mental illness through the life course, and Pearlin and Skaff (1996) deftly observe how the stressors, moderating resources, and outcomes used in stress-process models change with advancing age. In the tradition of these efforts, our work offers an empirical example of the specific benefits of integrating these frameworks.

"PARENTING" AN ADULT: A LIFE-COURSE PERSPECTIVE

A life-course perspective envisions development as a fluid trajectory that can make shifts of direction in what has been termed "turning points" (Pearlin and Skaff 1996; Wheaton 1997). Furthermore, development can occur throughout the life course, and thus well into old age (Elder, Johnson, and Crosnoe 2003). Once a person becomes a parent, this role is likely to be a central component of adult life for a long period of time. Hence, instead of a role that is limited in duration and framed by clear boundaries, parenting can be viewed as a life-long trajectory of shifting demands and responsibilities; the impact of this role can intensify or diminish as a product of various transitions and experiences in the lives of parent or child.

The shifting of various roles and responsibilities as adults reach old age helps to explain how parenting remains important, even when one's children are well into adulthood. As Stryker (1980) has noted, the salience of an identity is dependent on the social connections attached to the role, in comparison to the social connections associated with alternative roles. In the later years of the life course, individuals who are in the paid workforce withdraw from work life (Duncan 2003), and connections with life-long friends may be terminated due to death, chronic illness, or changes in residence. At the same time, the connections to one's children are more likely

to remain stable, and may in fact grow in strength as parents and their adult children are able to relate to each other as adults (Blieszner and Mancini 1987), with more common shared interests and experiences. Umberson (1992), for instance, showed that among parents of offspring aged 16 and older, age of parent was positively correlated with frequency of contact with the child, and negatively correlated with parental dissatisfaction. It is therefore not surprising that older parents report that they continue to have an active parental role (Blieszner and Mancini 1987), and that the parental role is highly salient to older parents (Krause 1994).

The life-course perspective's emphasis that lives are not lived in isolation, but interdependently with partners, offspring, and peers in a pattern of "linked lives" (Elder, Johnson, and Crosnoe 2003; Giele and Elder 1998) is critical for stress-process researchers to acknowledge (Thoits 1995; Wethington 2000). The transitions in older adulthood likely accentuate the importance of the interdependence between parent and adult child. As one reaches old age, markers of success in a career (Duncan 2003) or prominence in community groups may become terminated, and increasing health care costs may lead to a decrease in a standard of living. Consequentially, the success of and relations with adult children may be one of the most consistent indications of personal accomplishment available for parents in old age, further bolstering the degree to which parents' lives are interconnected with their adult children. Moreover, the life-course trajectory of the adult child also lends the child's success or failure special importance for the parent. An adult child is in the world, performing as an adult, thereby allowing the parent a better means of assessing how the child has "turned out" (Ryff, Schmutte, and Lee 1996). Similarly, the parent is able to reflect over a longer trajectory of the child's life, so the degree to which the adult child is prospering or failing is more clear (Ryff, Schmutte, and Lee 1996). Essentially, a child's successes and failures, such as those surrounding jobs and marriages of offspring when they are adults, provide a far more concrete and irrevocable judgment on whether one's children are ultimately flourish-

ing or withering than the experiences of a child or even an adolescent, and are therefore likely to be of special importance to parents in old age.

In sum, the life-course perspective highlights lifelong development into old age, focusing attention on how a role attained much earlier in life—becoming a parent—is not static and continues its reach into late life. It points to intergenerational relations as key to assess—in this case, how the problems children experience may bear down on their elderly parents' mental health.

ADULT CHILDREN AND PARENTAL MENTAL HEALTH

Drawing upon the stress-process framework (Pearlin 1999), we identify the ways that the quality of adult children's relationship with parents and stressors in adult children's lives influence elderly parents' mental health. More specifically, we assess two key sources of parenting strain: adverse or disrespectful treatment from offspring and children's exposure to key negative life events. According to stress-process theory, exposure to these problems may have deleterious consequences for parents' emotional health.

Adult children have considerable potential to affect parental well-being through the way they treat their parents. For instance, Koropecj-Cox (2002) has shown with cross-sectional data that, for both men and women aged 50 and older, poor relationship quality with at least one child was positively related to greater levels of depression among parents; in addition, poor relationship quality was also related to higher levels of loneliness. Similarly, Connidis and McMullin (1993) found that, in a sample of adults aged 55 and older, parents who were distant from their children had lower levels of happiness and life satisfaction (see also Umberson 1992). Furthermore, and intriguing in its power in regards to an ultimate outcome, Silverstein and Bengtson (1991) showed in a longitudinal study that more intimate ties with an adult child protected older parents who experienced the loss of a family member from dying themselves.

In addition to adult children's negative relationships with parents, the hardships of offspring may be difficult for elderly parents to endure. Kaufman and Uhlenberg (1998) showed that problems in an adult child's marriage can lead to strained adult child-parent relationships, as reported by the child. Additionally, in a relatively small sample of parents aged 60 and older, Greenberg and Becker (1988) reported that the number of problems an adult child faced was positively related to parental dissatisfaction with the parent-child relationship, and negatively related to the quality of the parent's relationship with the adult child.

Less frequently studied, but impelled by uniting arguments from a life-course perspective with stress-process theory, is how specific negative events and experiences in an adult child's life affect parental mental health. This synthesis suggests that when lives are tightly linked, the negative events in the life of one, in this case a child that parents are heavily invested in, are bound to the mental health of the other (Clausen 1993). Two studies that demonstrate children's problems may have important ramifications for elders' mental health by Greenfield and Marks (2006) and Pillemer and Suitor (1991), showed that an adult child's experience of at least one of a number of different problems was related to more negative well-being among both mothers and fathers. However, these studies were cross-sectional, and it is possible that worse mental health leads parents to view and report on children's lives more negatively, rather than the reverse. We contribute to this literature by using longitudinal data to show how adult children's treatment of parents, as well as the problems of these offspring, influences changes in elderly parents' mental health over time.

Studies of the effects of children's negative life events on their parents have tended to combine a variety of different issues (Greenfield and Marks 2006; Pillemer and Suitor 1991). It may be useful to untangle the types of events that children experience, so as to explore more fully the extent of their impact on parents, as stress research shows that events are not equal in their import (Wheaton

1999). Certain events, such as a child's serious illness, may be more stressful for parents to endure if they require a great amount of support from the parent or appear to be outside the child's (and their own) control. Moreover, events such as a child's serious illness or divorce are likely to be more or less distressing to older parents based on the parent's social location, as we discuss below.

GENDER, RACE, AND THE STRAINS OF PARENTING IN LATE LIFE

A hallmark of the stress-process model is that relations between strains and well-being are conditioned on one's social statuses (Pearlin 1999); explicitly incorporating this emphasis into life-course scholarship will advance theoretical and empirical work on older adults' trajectories. Social statuses like race and gender are important for conditioning relationships between stressors and mental health effects because they are markers for how some groups are advantaged and others disadvantaged through objective means and different subjective experiences (Pearlin 1999; McLeod and Nonnemaker 1999). In this research, we focus on gender and race as critical moderating social statuses, with the effects of children's problems and negative treatment by children perhaps more detrimental to mothers and to racial minorities. For both women and racial minorities, the parental role compared to work and community roles likely has provided relatively more power and rewards throughout much of their lives; this is especially true for the cohorts born early in the twentieth century, as gender and racial occupational discrimination which was prevalent during these individuals' prime work years meant that women and blacks had relatively less power in the workplace compared with their male and white counterparts. Thus, both groups may have a greater investment in the parent role, and may expect more positive connections to children than do their male and white counterparts (Mancini and Blieszner 1989; Pillemer and Suitor 1991), leading to more psychological distress when troubles arise in interactions with children or in the trajectories of children's lives (Cook 1988).

Below we detail additional ways in which adult children may differentially affect mothers versus fathers and African-American parents versus white parents.

Women have traditionally derived identity-relevant benefits from their roles in the household (Pleck 1977). For many women born in the first half of the twentieth century, raising successful children to adulthood is often understood as a great contribution and accomplishment in what was a world of limited opportunities (Erdmans 2004; Rossi and Rossi 1990). Although some argue that older mothers and fathers may be equally affected by the quality of relationships with children (Chodorow 1978; Gilligan 1982; Pillemer and Suito 1991; Koropecyk-Cox 2002), gendered structural constraints and socialization impel mothers to value connection with others and to invest deeply in the success of their children (Erdmans 2004; Hagestad 1986). Much research suggests that mothers have greater expectations of their children in terms of the parent-child relationship, and have stronger, more frequent, and more reciprocal ties to children than men do and take greater joys in them (Erdmans 2004; Rossi and Rossi 1990; Seelbach 1977). In all, socioemotional bonds with adult children may be stronger for mothers; we expect that negative elements in adult child-parent relations and adult children's life courses may have more deleterious effects on mothers' emotional well-being than on fathers'.

There are theoretical arguments as well as qualitative evidence for the idea that relationships with children may be more influential for elder African-Americans' well-being compared with whites. Scholars have argued that some minority groups tend to possess more supportive bonds to compensate for socioeconomic deprivation or isolation from mainstream institutions and formal organizations (Keith, Kim, and Schafer 2000; Markides and Black 1996). Stack's (1974) ethnographic analysis of the black urban poor found that many single mothers experience a unique constellation of intricate and resilient kin bonds. In particular, economic disadvantages and the absence of fathers may increase the extent to which many black elderly women are strongly

linked to familial sources of emotional and instrumental support (Dilworth-Anderson and Burton 1999; George 1990; Gibson and Jackson 1987; Ralston 1997; S. Taylor 1982, R. J. Taylor 1988).

Although little research has explored racial differences in how elderly adults' experiences of parenting influence well-being, we expect both African-American mothers and fathers, whose parenting role is perhaps more important relative to other roles they have held in the workplace or community, to be strongly affected by their adult children (Lee, Peek, and Coward 1998). In essence, the parent-child bond takes on particularly important psychological weight and investment in a society that is harsh to minorities and offers fewer opportunities for success. In addition, black parents expect more from their children than do whites in terms of informal social support and these greater expectations should mean that circumstances which may interfere with the provision of support, such as negative treatment or problems in the children's lives, will cause greater distress to black parents (Lee et al. 1998). This may be especially true for elderly parents today, who came of age before the U.S. civil rights movement in the 1960s. Thus, we expect that negative treatment from adult children and negative events in the lives of adult children will be more harmful to black parents' mental well-being than to whites.

In sum, uniting life-course and stress-process perspectives suggest that the parental role holds much importance for well-being during an individual's later years. Adult children's successes or failures, and the way adult children treat elderly parents, should affect parents' subsequent mental health. There should be especially strong effects for mothers compared to fathers, and for blacks compared to whites, since these groups have more at stake in how adult children treat them and how children experience events in their lives. Here we examine how parent-child relationships and negative events in the lives of adult children affect the psychological well-being of elderly parents over a period of four years, a crucial feature of this study given the lack of longitudinal analyses in this area of research.

METHODS

Sample and Data

The data for this study derive from in-person interviews first conducted in 2001 with a sample 65 years and older residing in the District of Columbia and two adjoining Maryland counties, Prince George's and Montgomery. Consistent with the purpose of the project to investigate status inequality and health disparities, the sample was socially and economically diverse. The three locales subsume this diversity.

Sample selection and recruitment began with the Medicare beneficiary files for the three areas. In addition to the names of all people 65 years and older who are entitled to Medicare, the files provided information about the race and gender of each beneficiary. The next step entailed selection from the large pool of potential participants. To maximize the social and economic diversity of our sample, we randomly selected a total of 4,800 names equally divided among the three locales, blacks and whites, and women and men, creating twelve groups containing 400 names each. In addition, to be eligible for inclusion in this sample, elders had to be living independently in one of the three locales under study, so that the goal in sample selection was to enlist a sample of 1,200 people living independently, with approximately 100 in each of the 12 groups. Approximately 65 percent of all eligible (i.e., living independently) respondents (1,741) who were contacted agreed to participate, yielding a total of 1,167 cases of socially and economically diverse backgrounds. Although it was not our goal to obtain a representative sample of the general community of elders, it appears that the age, gender, and racial composition of the sample is roughly equivalent to that of the population from the 2000 census (available upon request).

Following the first wave, respondents were surveyed three additional times. The second interview was approximately a year after the first, and the third interview was approximately a year after the second. The fourth wave of interviews, which occurred between 2005 and 2006, took place approximately two years after the third interview, and approxi-

mately four years after the first interview. All interviews after the first wave were shorter and conducted over the telephone. Sample size at Wave 2 was 1000 (an 85.7% retention rate), at Wave 3 the sample size was 925 (a 79.3% retention rate), and at Wave 4 the sample size was 789 (a 67.6% retention rate). Given the advanced age of the sample, and length of time between first and fourth wave, this is a relatively strong retention rate between Waves 1 and 4.

Because we were interested in the effects of parent-child relationships and the effects of negative events to children during a four-year period, we selected only those respondents who had at least one biological or adoptive child alive between Wave 1 and Wave 4 ($n = 678$).¹

Measures: Dependent Variables

Mental health outcomes. In order to capture a broader array of mental health outcomes (Aneshensel 2005), we include both depression and anger as outcome variables. Depression was measured by asking respondents to indicate how often they experienced five symptoms of depression over the past week: "lack enthusiasm for doing anything," "feel bored or have little interest in things," "cry easily or feel like crying," "feel downhearted or blue," and "feel slowed down or low in energy." Response choices were "no days" (1), "1 or 2 days" (2), "3 or 4 days" (3), and "5 or more days" (4). Responses were averaged to create a scale of depression (Cronbach's alpha = .77 at Wave 1 and .76 at Wave 4), with a small number of non-respondents to any of the items dropped before the responses were combined. Higher scores indicate higher levels of depression.

¹ For the two sets of multivariate analyses, those with missing data, mainly occurring on the dependent variables or main independent variables, were dropped from the analyses ($N = 79$ and $N = 80$). Those dropped from multivariate analyses did not differ significantly from those retained except: those retained had slightly higher education levels, and had slightly fewer reports of having a child separated or divorced and slightly more reports of a child with financial problems.

Anger was assessed by asking respondents to indicate how often they experienced five symptoms of anger over the past week: “feel very critical of others,” “become easily annoyed or irritated,” “argue with someone,” “feel angry,” and “yell at someone.” Response choices were the same as for the depression items. Responses were averaged to create a scale of anger (Cronbach’s $\alpha = .79$ at wave 1 and $.73$ at wave 4), with a small number of non-respondents to any of the items dropped before the responses were combined. Higher scores indicate higher levels of anger.

Independent Variables

Negative treatment by children was measured using an index composed of four items. Respondents were asked the frequency with which one or more of their children: “Treat you as though your feelings don’t matter,” “Treat you without proper respect,” “Do not pay attention to your opinions,” and “Look on you as ‘old-fashioned’ or out-of-date.” Response categories were: “Never” (1), “Rarely” (2), “Sometimes” (3), and “Frequently” (4). Responses were averaged to create a scale (Cronbach’s $\alpha = .69$), with non-respondents to any of the items dropped before the responses were combined.

Negative events to children were measured in terms of a list of negative life events that occurred within the past year to themselves or a loved one. The question was worded as follows. “Now I’d like to know about things that may have happened to you or to someone close to you since we last interviewed you on [Date]. Did someone close to you . . .” Respondents were then asked to whom the event occurred. Events were coded as the sum of events in each category below that occurred to children between Wave 1 and 4. Events included a serious accident or injury, a physical or mental illness, serious money problems, divorce or separation, or unemployment (being laid off or fired). Two events were not included due to their very rare occurrence (less than 5% of the sample had a child experience these during the four-year period and cell sizes for testing interaction

effects were not suitable): running into trouble with the law and being the victim of a crime.²

Social Status and Control Variables

Social status variables central in this study include gender and race. These are measured as follows:

Gender was coded as 0 = male, 1 = female.

Race was coded as 0 = White, 1 = African-American.

We control for a number of important factors, measured at Time 1, including age, SES, work/family, functional limitations, and integration variables that are linked to well-being. Although the sample is all 65 or older at Time 1, it is important to account for age across the diverse span of parental experiences through potentially decades of elderly parents’ later lives. We control for SES in order to account for the level of parental resources in the form of education level and income. Work and family variables, as well as social support from others are included to account for the extent to which elderly parents are connected to others, importantly linked with mental health. These connections are especially important to control for, given that women experience higher levels of social support than do men (Turner and Turner 1999), and we are interested in race and gender contingencies. Functional limitations may relate to both mental health outcomes and to relations with children.

Age, education and income. Age was coded in years. Education level was measured on a scale of 1 (eighth grade or less) to 6 (college graduate or more). Household income was measured by asking respondents to estimate their total household income in the previous year, with respondents selecting from categories with \$10,000 intervals, starting with

² One additional important negative event that greatly affects parental well-being is the child’s death. However, in alternative analyses, a measure of the event of a child’s death failed to obtain statistical significance in either main effects or interactions, most likely because it was a rare occurrence. Because of this and due to the unique nature of this stressor, we do not address death of a child within this analysis.

less than \$10,000 to \$100,000 or more. As with many social surveys, there was a noticeable pattern of missing data in this measure, and, where available, non-responses were imputed using responses from Wave 2. For the remaining 8.7%, household income was imputed using the median of the sample. A dichotomous “flag” variable was included in all multivariate models to adjust for this. The income flag is non-significant in all models of change in depression and anger.

Work and Family variables. Work status was coded as 0 = not working, 1 = currently working. Three family variables were included as controls. Marital status was coded as a series of dichotomous variables, including currently married, never married, divorced/separated, and widowed, with married as the omitted category in regression analyses. Number of children was a count of the number of biological or adopted children a respondent had, while number of grandchildren was the count of number of grandchildren the respondent had. If respondents had more than 14 grandchildren, they were coded as having 14. Ever separated or divorced was coded 0 if the respondent had never been separated or divorced and 1 if the respondent had ever been separated or divorced.

Functional limitations. One concern in examining the effects of negative treatment by children is that disability among older adults may lead to greater levels of disrespect and other types of negative treatment from adult children, and may also lead to greater levels of psychological distress (Taylor and Lynch 2004). Therefore, in examining the effects of negative treatment from adult children on psychological distress, it is important to rule out a spurious correlation due to covariance with functional limitations. To rule out such a possibility, an eight-item scale was used to control for functional limitations at Wave 1. Respondents indicated the level of difficulty they experienced with nine common tasks: “Dress and undress yourself,” “Get in and out of bed,” “Take a bath or shower,” “Get to and use the toilet,” “Climb up the stairs,” “Keep

your balance while walking,” “Go food shopping,” “Get from your home to where you need to go,” and “Figure out your own monthly bills.” Possible responses were: “Without difficulty” (1), “With difficulty, but without help” (2), “With a little help from someone” (3), “Unable to do this without complete help from someone or special equipment” (4). Responses were averaged to create a scale of physical limitations (Cronbach’s alpha = .87), with higher scores indicating more limitations. Scores for 14 missing cases were imputed using the sample mean.

Social integration. Similar to the case of functional limitations, older adults with greater number and variety of social connections may have lower levels of psychological distress and may also depend less on the adult child for support, possibly leading to lower levels of negative treatment from adult children. A number of controls are included to account for covariation between negative treatment and social integration. Formal integration, in terms of involvement in organizations, was controlled using three single-item measures: “How often do you go to religious services/activities?” “How often do you go to a club or organization meeting?” and “How often do you do volunteer work?” Possible responses for these items were “Never” (6), “Once a month or less” (5), “2–3 times a month” (4), “1–2 times a week” (3), “3–4 times a week” (2), and “Daily” (1). All responses were reverse-coded. Informal integration was measured using two single-item measures: “How often do you visit with friends?” and “How often do you talk to friends and relatives on the phone?” Response categories were the same as with formal integration and were also reverse-coded. For no measure of formal or informal integration were more than two respondents missing, and for these cases non-responses were coded at the mean for the sample.

Descriptives for all variables used in the analyses are presented in Table 1. In terms of the main independent variables of interest, the mean level of parent-child negative treatment from Wave 1 is relatively low on the scale, but

Table 1. Means and Standard Deviations for All Measures Used in Analyses

	Race				Gender				Entire Sample	
	Whites		African-Americans		Men		Women			
	Mean	S.D.	Mean	S.D.	Mean	S.D.	Mean	S.D.	Mean	S.D.
<i>Dependent Variables</i>										
Change in Depression	0.013	0.619	-0.035	0.583	-0.053	0.494	0.033	0.694	-0.011	0.602
Wave 1 Depression	1.426	0.531	1.450	0.552	1.376	0.516	1.501	0.560**	1.438	0.541
Change in Anger	0.024	0.495	-0.025	0.527	-0.017	0.487	0.019	0.533	0.001	0.511
Wave 1 Anger	1.350	0.489	1.305	0.485	1.348	0.520	1.308	0.451	1.328	0.487
<i>Independent Variables</i>										
Negative Treatment	1.671	0.583	1.755	0.710	1.699	0.639	1.726	0.661	1.713	0.650
Negative Events										
Accident or Injury	0.090	0.324	0.111	0.361	0.075	0.285	0.125	0.390	0.100	0.342
Physical or Mental Illness	0.171	0.484	0.142	0.443	0.116	0.411	0.197	0.510*	0.157	0.465
Money Problems	0.341	0.726	0.364	0.753	0.337	0.719	0.367	0.758	0.352	0.739
Divorced or Separated	0.249	0.625	0.117	0.392**	0.167	0.515	0.203	0.542	0.185	0.529
Unemployed	0.341	0.689	0.346	0.684	0.281	0.637	0.406	0.728*	0.343	0.686
<i>Central Social Status Variables</i>										
Black	—		—		0.493	0.501	0.475	0.500	0.484	0.500
Women	0.506	0.501	0.488	0.501	—		—		0.497	0.500
<i>Control Variables</i>										
Age	74.043	6.040	72.576	5.481**	73.132	5.805	73.537	5.833	73.333	5.818
Education	4.960	1.368	4.116	1.736***	4.830	1.605	4.270	1.572***	4.552	1.612
Income	7.177	3.170	5.113	2.958***	6.941	3.292	5.407	2.991***	6.178	3.236
Income Flag	0.040	0.196	0.046	0.209	0.029	0.169	0.056	0.231	0.043	0.202
Working	0.283	0.451	0.265	0.442	0.358	0.480	0.190	0.393***	0.274	0.447
<i>Marital Status</i>										
Ever Separated or Divorced	0.221	0.415	0.309	0.463**	0.271	0.445	0.255	0.437	0.263	0.441
Married	0.677	0.468	0.515	0.501***	0.768	0.423	0.427	0.495***	0.599	0.490
Widowed	0.231	0.422	0.293	0.456	0.141	0.348	0.383	0.487***	0.261	0.440
Divorced	0.086	0.280	0.177	0.382***	0.088	0.284	0.172	0.378**	0.130	0.336
Never-Married	0.006	0.075	0.015	0.123	0.003	0.054	0.018	0.132	0.010	0.101
Number of Children	3.254	1.700	3.238	2.124	3.111	1.790	3.383	2.028	3.246	1.915
Number of Grandchildren	5.046	3.723	4.811	4.250	4.743	3.826	5.123	4.135	4.933	3.985
Functional Limitations	1.093	0.263	1.119	0.341	1.091	0.309	1.121	0.298	1.106	0.304
<i>Integration</i>										
Frequency of Meetings	2.040	1.140	1.976	1.058	2.032	1.110	1.985	1.092	2.009	1.101
Freq. of Religious Attend.	2.800	1.460	3.497	1.236***	2.909	1.421	3.368	1.341***	3.137	1.400
Freq. of Volunteering	2.286	1.448	2.134	1.465	2.273	1.549	2.152	1.358	2.213	1.457
Freq. of Visits	3.720	1.367	3.102	1.397***	3.368	1.405	3.475	1.425	3.421	1.415
Freq. of Telephone Conv.	4.866	1.186	5.174	1.182***	4.713	1.308	5.320	0.975***	5.015	1.193

N = 678. Specific sample size varies depending on item response rates. Differences in dichotomous variables tested using chi-squared statistic; differences in continuous variables tested using t-tests.

* $p < .05$; ** $p < .01$; *** $p < .001$.

the standard deviation of over half a point indicates a fairly high degree of dispersion. Adult children's experiences of negative life events were relatively infrequent, with all means below 1 negative life event, but almost all standard deviations were near or above .5.

Limitations

There are limitations to this study that should be noted. The data used here were not based on representative sampling of U.S. elders. Although this sample generally corre-

sponded to the social makeup of the surrounding community from which it was gathered, the community itself is somewhat atypical in its attributes. The proximity of the federal government in the area allowed many individuals, especially African Americans, socioeconomic opportunities that would not have been available in other communities. In this case, we might expect race effects found here to be conservative, with perhaps stronger race effects if we had a broad cross-section of older African-American parents. Another question is whether

the findings observed here regarding stronger effects for those in certain social locations will hold for later cohorts. As women and blacks have gained more social and economic power over generations, parent roles may be more equal, with adult children affecting women and men and minority and majority ethnic groups more uniformly in the future.

Another limitation to note is that children of the elderly are of quite varied life stages, with some elders having young adult children, and some of the oldest perhaps having children who are senior citizens themselves. Although we did not examine how the current life stage of adult children is relevant to the relationships examined here, this is an important avenue for future research. Moreover, we did not ask about a particular child, and because there is a great deal of within family variability (Aldous, Klaus, and Klein 1985; Sutor, Pillemer, and Sechrist 2006), there are dynamics we cannot capture by asking about "children." An additional concern is how parent characteristics might relate to adult children's negative events (i.e., those with divorced parents may be more likely to divorce themselves; health problems may be more common in adult children of the unhealthy, and so on). We acknowledge a limited ability to ascertain how this may have affected the results. Finally, we do not explore all kinds of events, nor the meanings and attributions given to the events that we did measure. This latter point is especially important given somewhat ambiguous but intriguing findings about the power of certain events occurring to children, for example a divorce or separation.

Plan of Analysis

We examine changes in depression and anger between the two waves of data in order to better assess causality. We subtract the measure of mental health at Time 1 from the measure at Time 4, and use the result as our dependent variable, and also include the measure at Time 1 as a predictor to control for regression to the mean. All variables in interaction terms are centered. One concern in panel studies is that attrition of respondents between waves

may bias analyses. A strategy used in previous mental health studies is to include a hazard for attrition as a control variable in all multivariate analyses (see Mirowsky and Ross 2001). This hazard is created by using all Wave 1 variables in a probit regression to predict attrition, and then transforming the residuals of this probit model using an Inverse Mills Ratio, in which the ratio of the standard normal probability density function and cumulative density function is applied to the residuals for each respondent (Sales et al. 2004). However, to reduce multicollinearity between the hazard for attrition and other variables in the main analyses, it is recommended that at least one additional variable which predicts attrition be included in the probit regressions (Sales et al. 2004). For this reason, a measure of self-rated health during childhood was also included in the probit regressions. The probit model of attrition, for which full results are available upon request, indicated that women, younger respondents, respondents with higher incomes, those who were currently working, and those with better self-rated health in childhood were all significantly more likely to be retained at Wave 4; in addition, and not surprisingly, individuals who did not respond to the income question at Wave 1 were less likely to be included in the sample at Wave 4. While the hazard for attrition should adjust all parameter estimates for any biases due to these influences, it should also be noted that negative treatment by children was not significantly related to attrition.³

RESULTS

Depression

The effects of adult children's negative treatment and of negative events in their lives on changes in elderly parents' depression are presented in Table 2. Model 1 indicates that,

³ Since negative events items were a sum of events which occurred between Wave 1 and Wave 4, and therefore did not include respondents who had dropped out over the course of the study, they could not be used to predict attrition. However, since these measures indicate events which befell respondents' children, rather than the respondents themselves, we believe their contribution to survey attrition should be minimal.

Table 2. OLS Regressions Examining the Effects of Adult Child Strains on Changes in Depression

	Model 1		Model 2		Model 3		Model 4	
	<i>b</i>	SE	<i>b</i>	SE	<i>b</i>	SE	<i>b</i>	SE
<i>Independent Variables</i>								
Negative Treatment	0.052	0.034	-0.066	0.063	0.051	0.034	0.049	0.034
Negative Events								
Accident or Injury	0.038	0.063	0.038	0.062	0.117	0.093	-0.043	0.110
Physical or Mental Illness	-0.008	0.047	-0.012	0.047	-0.117	0.062	0.038	0.075
Money Problems	0.045	0.030	0.052	0.030	0.070	0.044	0.060	0.045
Divorced or Separated	0.023	0.042	0.017	0.042	0.046	0.050	-0.051	0.062
Unemployed	0.020	0.032	0.018	0.032	-0.057	0.045	0.023	0.050
<i>Central Social Status Variables</i>								
Black	-0.060	0.048	-0.060	0.048	-0.064	0.048	-0.061	0.049
Women	0.124*	0.048	0.124*	0.048	0.123**	0.048	0.130*	0.048
<i>Interactions</i>								
Treatment × Black			0.157*	0.065				
Treatment × Women			0.046	0.064				
Accident or Injury × Black					-0.125	0.125		
Physical or Mental Illness × Black					0.227*	0.092		
Money Problems × Black					-0.035	0.061		
Divorced or Separated × Black					-0.092	0.092		
Unemployed × Black					0.155*	0.063		
Accident or Injury × Women							0.124	0.133
Physical or Mental Illness × Women							-0.067	0.094
Money Problems × Women							-0.028	0.060
Divorced or Separated × Women							0.138	0.085
Unemployed × Women							-0.010	0.065
<i>Control Variables</i>								
Age	0.002	0.004	0.001	0.004	0.003	0.004	0.002	0.004
Education	-0.041*	0.016	-0.038*	0.016	-0.038*	0.016	-0.039*	0.017
Income	0.001	0.009	0.001	0.009	0.000	0.009	0.001	0.009
Income Flag	-0.066	0.115	-0.086	0.115	-0.067	0.114	-0.065	0.115
Working	-0.089	0.053	-0.088	0.052	-0.092	0.053	-0.084	0.053
Marital Status								
Ever Separated or Divorced	-0.005	0.064	0.004	0.064	-0.009	0.064	-0.009	0.064
Widowed	-0.018	0.055	-0.014	0.055	-0.012	0.055	-0.017	0.055
Divorced	-0.038	0.087	-0.047	0.087	-0.064	0.087	-0.030	0.088
Never-Married	0.133	0.229	0.139	0.228	0.132	0.228	0.151	0.230
Number of Children	0.035*	0.015	0.036*	0.015	0.032*	0.015	0.036*	0.015
Number of Grandchildren	-0.011	0.007	-0.012	0.007	-0.012	0.007	-0.012	0.007
Functional Limitations	0.249**	0.081	0.252**	0.081	0.244**	0.081	0.242**	0.081
Integration								
Frequency of Meetings	0.007	0.021	0.005	0.020	0.010	0.020	0.003	0.021
Freq. of Religious Attend.	-0.012	0.017	-0.009	0.017	-0.011	0.017	-0.013	0.017
Freq. of Volunteering	-0.033*	0.016	-0.034*	0.016	-0.030	0.015	-0.033*	0.016
Freq. of Visits	0.019	0.017	0.022	0.017	0.017	0.016	0.018	0.017
Freq. of Telephone Conv.	0.010	0.019	0.011	0.019	0.010	0.019	0.009	0.019
Wave 1 Depression	-0.700***	0.042	-0.690***	0.042	-0.697***	0.042	-0.706***	0.042
Hazard	-0.132	0.093	-0.129	0.092	-0.122	0.092	-0.133	0.093
Constant	0.823*	0.341	0.798*	0.340	0.755*	0.341	0.801*	0.342
Adjusted R ²	0.329		0.334		0.339		0.327	

N = 599. * $p < .05$; ** $p < .01$; *** $p < .001$.

Unstandardized coefficients are presented with standard errors in the next column.

independent of controls and of Wave 1 depression, negative treatment from adult children is not related to changes in depression. In addition, no event that adult children experienced

over the period of the study related to changes in depression.

Although we do not find significant main effects, additional models examine the possi-

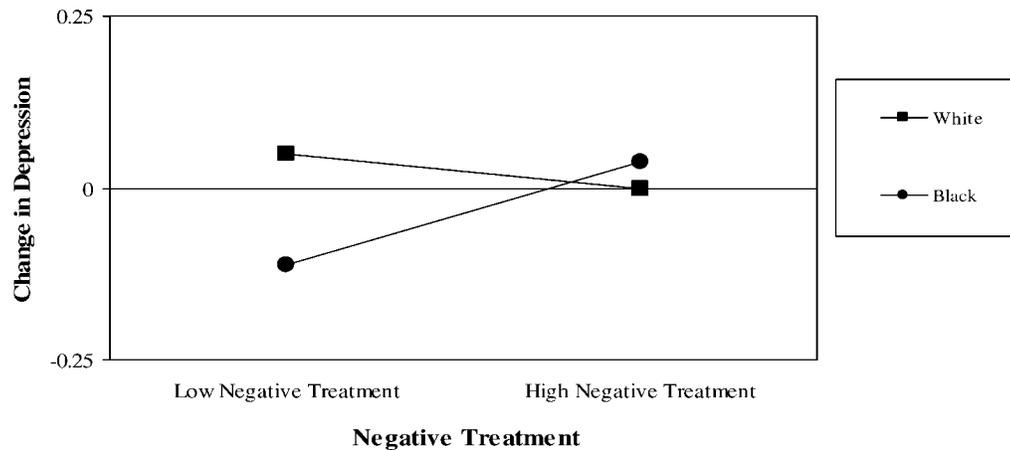


Figure 1. Effects of Negative Treatment on Depression, Split by Race

bilities that the relationship between children's treatment and experiences on parental depression differ by race and gender. Model 2 includes interactions between negative treatment and race and negative treatment and gender. The interaction with race is significant, indicating that the effects of negative treatment on changes in depression differ between African Americans and whites.⁴ Figure 1, which presents the adjusted mean change in depression separately for African-Americans and whites at one standard deviation above and below the mean for negative treatment from adult children, helps to clarify the meaning of this interaction term.⁵ This figure indicates that higher levels of negative treatment are positively related to changes in depression for African Americans; for whites, the slope of this relationship is relatively flat, indicating little association between negative treatment

by adult children and changes in depression. In ancillary analyses when regressions were run separately for African Americans and whites, the main effects of negative treatment were significant for African Americans ($p < .01$), but not whites.

The interactions between race and two negative events are also significant (see Model 3). One of these interactions involved a child's illness, while a second involved a child being laid off or fired. Similar to the previous interaction involving negative treatment, an additional step in the analyses intended to better understand these interactions involved running separate regressions for black and white parents. As expected, the direction of the coefficient for blacks is positive, indicating a small increase in depression due to a child's illness, but it is only marginally significant ($p < .10$). The direction of the coefficient for whites is negative, but not significant. A second interaction effect involves race and a child being laid off or fired. Split sample regressions indicate that the effect of this event is non-significant for whites parents, but is positive and significant for blacks ($p < .05$). Additional ancillary analyses indicate that with a child being laid off or fired is positively related to changes in depression, but only among black parents.

Although race conditions the effects of certain offspring events, the effects of these negative events do not vary by the gender of

⁴ In alternative analyses, all interactions were tested in separate models, and all interactions retained significance in models that tested interactions separately. Furthermore, three-term interactions with race and gender showed that the effects of negative events and treatment on depression and anger did not vary by race and gender.

⁵ The figures were created by calculating predicted change scores. These predictions were calculated by solving each regression equation based on race, and using the mean for all control variables. Thus, the interaction between race and negative treatment for depression indicated a larger coefficient for negative treatment for African Americans, so this figure was created using this larger coefficient for negative treatment, and all control variables were held at their means.

the parent, as shown in Model 4. Overall, results for depression support the contention that negative treatment by one's adult child, and negative events which befall them, will weigh more heavily on the depression of black parents over time, although the range of events in which this may occur appears to be fairly limited. Effects of negative treatment by and negative events which occur to adult children on changes in depression do not vary by the gender of the parent. Below, we describe how adult children affect changes in older adults' anger.

Anger

The effects of adult children's negative treatment of parents and of the negative events in children's lives on changes in parental anger are examined in Table 3. Model 1 indicates that, independent of controls, negative treatment from adult children is positively related to changes in anger. Moreover, model 2 indicates that there is a significant interaction between negative treatment and gender. The meaning of this interaction is made clear in Figure 2, which depicts the adjusted means for changes in anger separately for men and women, and indicates that negative treatment is related to increases in anger for mothers, but not fathers. Further ancillary analyses which examined the main effects for negative treatment separately for mothers and fathers indicate that the effects are significant for mothers ($p < .001$), but not fathers.

No negative life event is significantly related to change in anger (see Model 1). However, Model 3 indicates that the effects of these negative life events also vary by race for anger. Again, we find a significant interaction between a child's illness and race, and we also find a significant interaction between a child becoming divorced or separated and race. In both cases, split-sample regressions indicate significant main effects for black parents, but not white parents. For child's illness, this effect is significant at $p < .01$, and is positive, indicating that an adult child's illness is related to increases in anger over the course of the study. However, for an adult

child's divorce or separation, this effect is significant at $p < .05$ and is negative. Examination of the adjusted means confirmed that adult children's divorce or separation was related to decreases in anger for black parents. This relationship is counter to the expectation that an adult child's divorce or separation will lead to increases in older parents' anger, and this finding will be addressed further in the discussion section. Model 4 indicates that no interaction between negative event and gender is significant.

In sum, adult children do affect subsequent changes in the mental health of parents. Negative treatment by adult children is detrimental to the emotional well-being of older black parents and older mothers, though this is expressed in different emotional outcomes—more depression for black parents and more anger among mothers. Certain key negative events in children's lives are powerful enough to influence older parents' emotional well-being too, though these effects differ based on the race of the parent. A child's illness affected black parents' depression and anger levels (although for depression this was only marginally significant), and a child's unemployment affected depression levels for black parents as well. Unexpectedly, a child's divorce decreased anger for black parents. In all, the results show that the power of children's lives to affect elderly parents' emotional well-being is quite evident, though contingent on social statuses.

DISCUSSION

This research shows how a more complex theoretical and empirical understanding of the social psychology of aging can be facilitated through an integration of life-course and stress-process perspectives. With its focus on the pathways by which stressors influence mental health, and its emphasis on social statuses, a stress-process perspective can guide life-course scholars in assessing the processes by which role strains affect psychological well-being at older ages. However, a life-course perspective provides a more sophisticated understanding of the origin and nature of these stressors and of the importance of

Table 3. OLS Regressions Examining the Effects of Adult Child Strains on Changes in Anger

	Model 1		Model 2		Model 3		Model 4	
	<i>b</i>	SE	<i>b</i>	SE	<i>b</i>	SE	<i>b</i>	SE
<i>Independent Variables</i>								
Negative Treatment	0.057*	0.029	-0.025	0.053	0.060*	0.029	0.059*	0.029
Negative Events								
Accident or Injury	-0.017	0.053	-0.022	0.053	-0.065	0.076	0.025	0.100
Physical or Mental Illness	0.023	0.039	0.027	0.039	-0.080	0.052	0.033	0.064
Money Problems	0.017	0.025	0.019	0.025	0.021	0.036	0.014	0.038
Divorced or Separated	0.007	0.035	0.003	0.035	0.059	0.041	0.029	0.053
Unemployed	0.005	0.027	0.002	0.027	-0.006	0.038	0.026	0.043
<i>Central Social Status Variables</i>								
Black	-0.081*	0.040	-0.079	0.040	-0.090*	0.040	-0.079	0.041
Women	0.030	0.040	0.033	0.039	0.034	0.039	0.028	0.040
<i>Interactions</i>								
Treatment × Black			0.007	0.055				
Treatment × Women			0.144**	0.054				
Accident or Injury × Black					0.119	0.106		
Physical or Mental Illness × Black					0.230**	0.076		
Money Problems × Black					-0.012	0.051		
Divorced or Separated × Black					-0.186*	0.078		
Unemployed × Black					0.031	0.053		
Accident or Injury × Women							-0.063	0.118
Physical or Mental Illness × Women							-0.024	0.079
Money Problems × Women							0.004	0.051
Divorced or Separated × Women							-0.040	0.071
Laid Off or Fired × Women							-0.036	0.055
<i>Control Variables</i>								
Age	-0.002	0.003	-0.002	0.003	-0.001	0.003	-0.002	0.003
Education	0.010	0.014	0.012	0.014	0.011	0.014	0.010	0.014
Income	-0.001	0.008	-0.001	0.008	-0.002	0.008	-0.002	0.008
Income Flag	-0.076	0.099	-0.093	0.099	-0.072	0.098	-0.080	0.100
Working	0.001	0.043	-0.004	0.043	-0.001	0.043	-0.002	0.044
Marital Status								
Ever Separated or Divorced	0.009	0.053	0.015	0.053	0.018	0.053	0.012	0.054
Widowed	-0.089	0.046	-0.084	0.046	-0.073	0.046	-0.090	0.046
Divorced	-0.119	0.072	-0.124	0.072	-0.133	0.072	-0.127	0.073
Never-Married	0.369	0.192	0.378*	0.191	0.362	0.189	0.353	0.193
Number of Children	0.013	0.012	0.014	0.012	0.010	0.012	0.014	0.013
Number of Grandchildren	-0.004	0.006	-0.004	0.006	-0.004	0.006	-0.004	0.006
Functional Limitations	0.213**	0.068	0.214**	0.068	0.216**	0.068	0.213**	0.069
Integration								
Frequency of Meetings	0.007	0.017	0.008	0.017	0.007	0.017	0.008	0.017
Freq. of Religious Attend.	-0.017	0.014	-0.016	0.014	-0.015	0.014	-0.017	0.014
Freq. of Volunteering	-0.006	0.013	-0.009	0.013	-0.002	0.013	-0.006	0.013
Freq. of Visits	0.012	0.014	0.011	0.014	0.012	0.014	0.013	0.014
Freq. of Telephone Conv.	0.034*	0.016	0.031	0.016	0.035*	0.016	0.034*	0.016
Wave 1 Anger	-0.677***	0.037	-0.677***	0.037	-0.681***	0.037	-0.676***	0.038
Hazard	-0.044	0.073	-0.034	0.073	-0.035	0.072	-0.043	0.073
Constant	0.674*	0.288	0.691*	0.287	0.559	0.287	0.669*	0.290
Adjusted R ²	0.361		0.367		0.377		0.357	

N = 600. * $p < .05$; ** $p < .01$; *** $p < .001$.

Unstandardized coefficients are presented with standard errors in the next column.

linked lives. Explicitly tying these perspectives together complements and strengthens social psychological theorizing about older adults' emotional development, as others have

artfully argued (Pearlin and Skaff 1996; George 1999; Pearlin et al. 2005). In this discussion, we expand on those earlier arguments with four specific points about integrating life

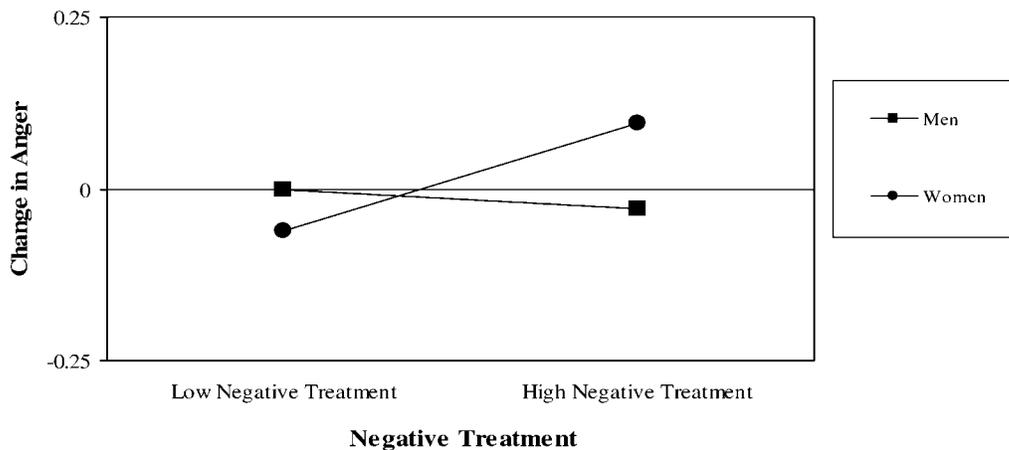


Figure 2. Effects of Negative Treatment on Anger, Split by Gender

course and stress research, and show the empirical fruits of doing so.

The Long Reach of Earlier Life Roles into Later Life Mental Health: A Life-course Lesson for Stress Researchers

With its emphasis on development as a life-long process, a life-course perspective draws attention to the ways in which roles established far earlier in the life course may continue to structure lives by creating opportunity for support and pleasure in later life, as well as stress and pain. The emphasis on trajectories of life experiences calls attention to the ways in which the importance of these roles may decrease and increase across the life course, helping to provide an understanding of how roles established so many years before can continue to be both a benefit and detriment for mental health. Moreover, assessing how identities associated with a role may decrease or increase in importance based on the degree and emotional intensity of social connections to that role (Stryker 1980) helps us build knowledge of how specific roles may become more (or less) important to mental health as people age.

In this study, we show that a set of stressors for older adults finds its origins in the interpersonal arena of the parental role—begun decades earlier. While it is commonly assumed that the parental role is highly relevant during the childhood and adolescence of

offspring, parents' emotional well-being is tied to children's life courses well into late life. Indeed, as alternative roles and social ties diminish in old age, the parental role may be reinvigorated. Consequently, stressors and conflicts which occur within this role may be particularly pernicious for older adults' mental health.

Linked Lives: Incorporating Networks into the Stress Process

A key aspect of life-course scholars' work, a focus on "linked lives," can inform those examining older adults' mental health. Classic studies in the area, such as Elder's *Children of the Great Depression*, demonstrate how events in parents' lives (such as unemployment) are linked to children's family roles, trajectories, and well-being (1999). The stress-process model does not typically take advantage of examining events occurring to key *others* in assessing stress processes (Pearlin et al. 2005; Thoits 1995; Wethington 2000), although these "network" events may become even more important as people age (Pearlin and Skaff 1996). A synthesis of life-course and stress-process perspectives provides a more holistic social psychology of aging by calling attention to the ways in which the influences on psychological well-being may not occur because of stress in the lives of parents directly, but instead through the social relationships which older adults establish

throughout their lives. The power of these linked lives for psychological well-being in old age may be so potent that stress itself need not occur directly in the relationship. Stressors which occur to socially significant others may be powerful enough in and of themselves to affect the psychological well-being of older adults.

Examining these network stressors is important. Negative events that happened to children during the four-year period affected changes in parents' well-being, at least among certain elders, complementing earlier research on older parents (Greenfield and Marks 2006; Pillemer and Suitor 1991). We extend this earlier work by showing the influence of some specific key negative events on change in parental well-being over time. Adult children's employment difficulties were positively related to changes in depression for black parents, and adult children's experiences of mental or physical illnesses were related to increases in anger among black parents. Although we cannot assess the context and meaning of the events, as well as the potential attributions parents might make about the fatefulness versus control their children have over their lives, this is critical to examine in future research. For example, an event perceived as out of a child's control, such as illness or unemployment, may seem worse in that it reaffirms fateful circumstances or a lack of efficacy that black parents' experienced during their lifetimes (Hughes and Demo 1989). Moreover, it may be that particular events have more severe consequences for some parents, compared to those in other social groups.

One unexpected finding was that a child's divorce or separation decreases black parents' distress over the four-year period. Although we can only speculate, it could be due to the differing contexts of marriage for black versus white adults today. Whereas for white young to middle-aged adults, marriage is quite normative and a disruption violates expectations, the same meanings may not be attached to marriage or partnerships for younger black adults. If black younger people are largely unattached, then older black parents may not see the end of a relationship as so distressing, and indeed may feel "relief" if their child is

getting out of a bad situation. These findings illustrate that older parents experience children's events differently based on race, an extension of the literature on parenting and mental health that should be further assessed. The question remains, too, of *how* stressors that older adults do not directly experience can impact psychological well-being. Clearly, this is another important area for further research.

TWO WAYS TO EXTEND LIFE-COURSE RESEARCH USING THE STRESS-PROCESS MODEL

According to George (2003, p. 673), integrating other theoretical traditions with life course scholarship will be the "dominant form" of the future. Two strengths of the stress-process model complement and enhance life-course scholars' research on older parents' development. Fundamentally, stress-process models treat mental health as an outcome of roles strains and events. This is important to incorporate more explicitly into life-course research which more often focuses on other social psychological outcomes like attitudes or satisfaction, especially since one might have poor mental health but continue to claim they are "satisfied" (Pearlin and Skaff 1996). Life-course researchers should more often examine the textured consequences of roles, role transitions, or events for distress as measured in mental health research by depression, anger, or drug use. Indeed, Wheaton (2001) convincingly argues that mental health is the ultimate dependent variable of interest for sociologists of all bents.

A second key aspect of the stress-process model is that social and economic statuses are an explicit part of the conceptualization, with much research showing how the effects of roles strains and events on mental health are *conditional* on social statuses like race, gender, or SES. Social statuses fundamentally mark individuals in ways that advantage some and disadvantage others; in research, these markers are proxies for differences in how stressors impinge on people's lives (Pearlin 1999). Although life-course researchers sometimes examine and report on socialization processes in this way, it should become a more

formal part of the model that Elder and others describe in overviews about the perspective (e.g., Giele and Elder 1998; Elder, Johnson, and Crosnoe 2003).

Our study accounts for social statuses when examining intergenerational relations and mental health. For example, we find that perceptions of negative treatment by adult children are positively related to changes in both anger and depression for older adults over time, similar to earlier work (Koropeckyj-Cox 2002; Connidis and McMullin 1993). However, effects of negative treatment are heavily proscribed by social status, demonstrating the necessity of taking social status into account when examining the psychological consequences of stressors at older ages. Specifically, the effects of negative treatment on changes in depression were confined to black parents, while the effects on anger were limited to mothers. Before considering how the effects of negative treatment varied by race (a status not often examined in studies of older parents' well-being), the effects of treatment on depression appeared to be non-significant.

Our findings demonstrate that being an older parent is not an equivalent experience across different social locations. Those with social locations that are more characterized by deficits of power in work and community roles may be especially affected by experiences within the intergenerational tie. Moreover, for women, family ties and connections with others may be especially deep due to socialization processes (Chodorow 1978). For African Americans, limited social and economic opportunities may contribute to the forging of deeper ties with family members (Stack 1974). Greater investment by parents in the link with their children may provide greater reciprocity and positive connections, but also perhaps greater negative reverberations for mental health when relationships or experiences are difficult. Thus, these results show that studies of the social psychology of interpersonal stressors in old age may overlook important aspects of these stressors if social statuses are not taken into account.

CONCLUSION

This study contributes to a social-psychological perspective on aging and mental health in several ways. First, we show that negative events adult children experience, as well as the negative treatment of elderly parents by adult children, can affect parental well-being in old age. Although the parenting experience is undoubtedly enriching in various ways across the years, the negative facets related to this role continue to exert themselves decidedly into very late life.

Unlike prior studies assessing how relationships with adult children can affect the mental health of elderly parents, we use longitudinal data that allows us to assess whether and how adult children cause changes in mental health. The results concerning negative treatment by children demonstrate how the bonds between generations reach into late life to provide meaning in older adults' lives. The "linked lives" established through procreation do not end once offspring reach maturity, but continue to structure and influence experiences throughout the life course. Indeed, the social bonds forged by the parental role may be especially critical at older ages as adults increasingly look to these bonds as a source of social and instrumental support. Negative treatment by adult children may be seen as a sign that support when needed by parents will be given grudgingly, if at all. Moreover, such stressful interactions may also be taken as indications of failure in the parental role. Therefore, while this research has attempted to delineate the psychological effects of perceptions of negative treatment by adult children, an important next step in the social-psychological literature is to examine more directly the meaning of these negative interactions for adult parents. Such an effort would both help to contribute to an understanding of the social psychology of parenting in old age, as well as help to explain the specific psychological mechanisms by which negative treatment from adult children impact older parents' well-being. In this study, we also argue for the importance of examining social statuses in assessing the emotional lives of older adults. We show how these parenting process-

es may affect older adults' mental health differently based on one's social status locations of gender, and especially race, as detailed above. Finally, we place the study of these effects within a larger social psychological framework, and demonstrate how uniting stress-process and life-course perspectives enhances our understanding of the emotional lives of older adults. Overall, we demonstrate how the integration of these frameworks provides rich opportunities for a more complete social psychology of aging, one with a distinctly sociological perspective

REFERENCES

- Allen, Katherine R., Rosemary Blieszner, and Karen A. Roberto. 2000. "Families in the Middle and Later Years: A Review and Critique of Research in the 1990s." *Journal of Marriage and Family* 62:911–26.
- Aldous, Joan, Elisabeth Kraus, and David M. Klein. 1985. "The Understanding Heart: Aging Parents and Their Favorite Children." *Child Development* 56:303–16.
- Aneshensel, Carol S. 2005. "Research in Mental Health: Social Etiology and Social Consequences." *Journal of Health and Social Behavior* 46:221–28.
- Blieszner, Rosemary and Jay A. Mancini. 1987. "Enduring Ties: Older Adults' Parental Role and Responsibilities." *Family Relations* 36:176–80.
- Chodorow, Nancy. 1978. *The Reproduction of Mothering: Psychoanalysis and the Sociology of Gender*. Berkeley, CA: University of California Press.
- Clausen, John A. 1993. *American Lives: Looking Back at the Children of the Great Depression*. New York: The Free Press.
- Connidis, Ingrid Arnet and Julie Ann McMullin. 1993. "To Have or Have Not: Parent Status and the Subjective Well-Being of Older Men and Women." *Gerontologist* 33:630–36.
- Cook, Judith. 1988. "Who 'Mothers' the Chronically Mentally Ill?" *Family Relations* 34:42–49.
- Dilworth-Anderson, Peggye and Linda Burton. 1999. "Critical Issues in Understanding Family Support and Older Minorities." Pp. 94–105 in *Full-Color Aging: Facts, Goals, and Recommendations for America's Diverse Elders*, edited by T. Miles. Washington, DC: Gerontological Society of America.
- Duncan, Colin. 2003. "Assessing Anti-Ageism Routes to Older Worker Re-Engagement." *Work, Employment, and Society* 17:101–20.
- Elder, Glen H., Jr. 1999. *Children of the Great Depression*. Boulder, CO: Westview Press.
- Elder, Glen H. Jr., Monica Kirkpatrick Johnson, and Robert Crosnoe. 2003. "The Emergence and Development of Life Course Theory." Pp. 3–19 in *Handbook of the Life Course*, edited by Jeylen T. Mortimer and Michael J. Shanahan. New York: Kluwer Academic.
- Erdmans, Mary. 2004. *The Grasinski Girls: The Choices They Had and the Choices They Made*. Athens, OH: Ohio University Press.
- Evenson, Ranae and Robin Simon. 2005. "Clarifying the Relationship Between Parenthood and Depression." *Journal of Health and Social Behavior* 46:341–58.
- George, Linda K. 2003. "Life-course Research: Achievements and Potential." Pp. 671–80 in *Handbook of the Life Course*, edited by Jeylen T. Mortimer and Michael J. Shanahan. New York: Kluwer Academic.
- George, Linda K. 1999. "Life-course Perspectives on Mental Health." Pp. 565–83 in *Handbook of the Sociology of Mental Health*, edited by Carol S. Aneshensel and Jo C. Phelan. New York: Plenum.
- George, Linda K. 1990. "Social Participation in Later Life: Black-White Differences." Pp. 99–126 in *The Black American Elderly: Research on Physical and Psychosocial Health*, edited by James S. Jackson. New York: Springer.
- Gibson, Rose C. and James S. Jackson. 1987. "Health, Physical Functioning, and Informal Supports of the Black Elderly." *Milbank Quarterly* 65:412–54.
- Giele, Janet Z., and Glen H. Elder, Jr. 1998. "Life Course Research: Development of a Field." Pp. 5–27 in *Methods of Life Course Research Qualitative and Quantitative Approaches*, edited by Janet Z. Giele and Glen H. Elder, Jr. Thousand Oaks, CA: Sage.
- Gilligan, Carol. 1982. *In a Different Voice: Psychological Theory and Women's Development*. Cambridge: Harvard University Press.
- Greenberg, Jan S. and Marion Becker. 1988. "Aging Parents as Family Resources." *Gerontologist* 28:786–91.
- Greenfield, Emily A. and Nadine F. Marks. 2006. "Linked Lives: Adult Children's Problems and Their Parents' Psychological and Relational Well-Being." *Journal of Marriage and Family* 68:442–54.
- Hagestad, Gunhild. 1986. "Dimensions of Time and the Family." *American Behavioral Scientist* 29: 679–94.
- Hughes, Michael, and David H. Demo. 1989. Self Perceptions of Black Americans: Self-Esteem and Personal Efficacy. *American Journal of Sociology* 95:132–59.
- Kaufman, Gayle and Peter Uhlenberg. 1998. "Effects of Life-course Transitions on the Quality of Relationships Between Adult Children and

- Their Parents." *Journal of Marriage and the Family* 60:924-38.
- Keith, Pat M., Soyung Kim, and Robert B. Schafer. 2000. "Informal Ties of the Unmarried in Middle and Later Life: Who Has Them and Who Does Not?" *Sociological Spectrum* 20:221-39.
- Knoester, Chris. 2003. "Transitions in Young Adulthood and the Relationship between Parent and Offspring Well-Being." *Social Forces* 81:1431-58.
- Koropecykj-Cox, Tanya. 2002. "Beyond Parental Status: Psychological Well-Being in Middle and Old Age." *Journal of Marriage and Family* 64:957-71.
- Krause, Neal. 1994. "Stressors in Salient Social Roles and Well-Being in Later Life." *Journal of Gerontology* 49:137-48.
- Lee, Gary R., Chuck W. Peek, and Raymond T. Coward. 1998. "Race Differences in Filial Responsibility Expectations among Older Parents." *Journal of Marriage and the Family*. 60:404-12.
- Mancini, Jay A. and Rosemary Blieszner 1989. "Aging Parents and Adult Children: Research Themes in Intergenerational Relations." *Journal of Marriage and the Family* 51:275-90.
- Markides, Kyriakos S. and Sandra A. Black. 1996. "Race, Ethnicity, and Aging: The Impact of Inequality." Pp. 153-70 in *Handbook of Aging and the Social Sciences*, edited by Robert Binstock and Linda George. San Diego, CA: Academic Press.
- McLeod, Jane D. and James M. Nonnemaker. 1999. "Social Stratification and Inequality." Pp. 321-44 in *Handbook of the Sociology of Mental Health*, edited by Carol S. Aneshensel and Jo C. Phelan. New York: Plenum.
- Mirowsky, John and Catherine Ross. 2001. "Age and the Effect of Economic Hardship on Depression." *Journal of Health and Social Behavior* 42:132-50.
- Nomaguchi, Kei and Melissa Milkie. 2003. "Costs and Rewards of Children: The Effects of Becoming a Parent on Adults' Lives." *Journal of Marriage and Family* 65: 356-374.
- Pearlin, Leonard I. 1999. "The Stress Process Revisited: Reflections on Concepts and Their Interrelationships." Pp. 395-415 *Handbook of the Sociology of Mental Health*, edited by Carol S. Aneshensel and Jo C. Phelan. New York: Plenum.
- Pearlin, Leonard I., Scott Schieman, Elena M. Fazio, and Stephen C. Meersman. 2005. "Stress, Health, and the Life Course: Some Conceptual Perspectives." *Journal of Health and Social Behavior* 46:205-19.
- Pearlin, Leonard I and Marilyn M. Skaff. 1996. "Stress and the Life Course: A Paradigmatic Alliance." *Gerontologist* 36:239-47.
- Pillemer, Karl and J. Jill Sutor. 1991. "Will I Ever Escape My Child's Problems? Effects of Adult Children's Problems on Elderly Parents." *Journal of Marriage and Family* 62:911-26.
- Pleck, Joseph H. 1977. "The Work-Family Role System." *Social Problems* 24:417-27.
- Ralston, Penny A. 1997. "Midlife and Older Black Women." Pp. 273-89 in *Handbook on Women and Aging*, edited by J. Coyle Westport, CT: Greenwood Press.
- Rossi, Alice S. and Peter H. Rossi. 1990. *Of Human Bonding: Parent-Child Relations Across the Life Course*. New York: Aldine de Gruyter.
- Ryff, Carol D. and Marsha Mailick Seltzer. 1996. "The Uncharted Years of Midlife Parenting." Pp. 3-25 in *The Parental Experience in Midlife*, edited by Carol D. Ryff and Marsha Mailick Seltzer. Chicago, IL: The University of Chicago Press.
- Ryff, Carol D., Pamela S. Schmutte, and Young Hyun Lee. 1996. "How Children Turn Out: Implications for Parental Self-Evaluation. Pp. 383-422 in *The Parental Experience in Midlife*, edited by Carol D. Ryff and Marsha Mailick Seltzer. Chicago, IL: The University of Chicago Press.
- Sales Anne E., Mary E. Plomondon, David J. Magid, John A. Spertus, and John S. Rumsfeld. 2004. "Assessing Response Bias from Missing Quality of Life Data: The Heckman Method." *Health and Quality of Life Outcomes* 2:49-58.
- Seelbach, Wayne C. 1977. "Gender Differences in Expectations for Filial Responsibility." *Gerontologist* 17:421-425.
- Silverstein, Merrill and Vern L. Bengtson. 1991. "Do Close Parent-Child Relations Reduce the Morality Risk of Older Parents?" *Journal of Health and Social Behavior* 32:382-395.
- Stack, Carol. 1974. *All Our Kin: Strategies for Survival in a Black Community*. New York: Harper and Row.
- Stryker, Sheldon. 1980. *Symbolic Interactionism: A Social Structural Version*. Menlo Park, CA: Benjamin/Cummings.
- Sutor, Jill J., Karl Pillemer, and Jori Sechrist. 2006. "Within-Family Differences in Mothers' Support to Adult Children." *Journals of Gerontology Series B: Psychological Sciences and Social Sciences* 61:S10-S17.
- Taylor, Miles G. and Scott M. Lynch. 2004. "Trajectories of Impairment, Social Support, and Depressive Symptoms in Later Life." *Journal of Gerontology: Social Sciences* 59:S238-S246.
- Taylor, Robert Joseph. 1988. "Aging and Supportive Relationships among Black Americans." Pp. 259-81 in *The Black American Elderly*, edited by James S. Jackson. New York: Springer.
- Taylor, Sue. 1982. "Mental Health and Successful Coping among Aged Black Women." Pp. 41-51 in *Minority Aging: Sociological and Social*

- Psychological Issues*, edited by R. Manuel. Westport, CT: Greenwood.
- Thoits, Peggy A. 1995. "Stress, Coping and Social Support Processes: Where Are We? What Next?" *Journal of Health and Social Behavior* 35:53–79.
- Turner, R. Jay and J. Blake Turner. 1999. "Social Integration and Support." Pp. 301–20 in *Handbook of the Sociology of Mental Health*, edited by Carol S. Aneshensel and Jo C. Phelan. New York: Plenum.
- Umberson, Debra. 1992. "Relationships Between Adult Children and Their Parents: Psychological Consequences for Both Generations." *Journal of Marriage and the Family* 54:664–74.
- Umberson, Debra and Walter Gove. 1989. "Parent-hood and Psychological Well-Being: Theory, Measurement, and Stage in Family Life Course." *Journal of Family Issues* 10:440–62.
- Wethington, Elaine. 2000. "Contagion of Stress." *Advances in Group Processes* 17:229–53.
- Wheaton, Blair 1997. "Trajectories and Turning Points Over the Life Course: Concepts and Themes." Pp. 1–25 in *Stress and Adversity over the Life Course*, edited by Ian H. Gotlib and Blair Wheaton. Cambridge, UK: Cambridge University Press.
- Wheaton, Blair. 1999. "Social Stress." Pp. 277–300 in *Handbook of the Sociology of Mental Health*, edited by Carol S. Aneshensel and Jo C. Phelan. New York: Plenum.
- Wheaton, Blair. 2001. "The Role of Sociology in the Study of Mental Health...and the Role of Mental Health in the Study of Sociology." *Journal of Health and Social Behavior* 42:221–34.

Melissa A. Milkie is associate professor of sociology at the University of Maryland. Her research focuses on how cultural ideals related to dimensions of stratification like gender, race, and social class influence the self-concept and mental health. Currently, she is researching social aspects of children's mental health.

Alex Bierman is assistant professor of sociology at California State University, Northridge. His research focuses on the intersection of family, health, and religion, especially in the context of aging. One focus of his current research is an examination of how marriage and religion shape reactions to stress in old age.

Scott Schieman is professor of sociology at the University of Toronto. His research focuses on the sociological causes and personal consequences of stress. Currently, he is writing a book titled *Divine Control*, which focuses on beliefs about God's involvement and causal relevance in everyday life.