*Parental Death and Subjective Age: Indelible Imprints from Early in the Life Course?**

Markus H. Schafer, ***Purdue University***

Past research suggests that sustaining a young identity helps adults maintain a greater sense of well-being. The experience of subjective aging, however, is not a spontaneous phenomenon, but stems from lifelong developmental experiences. Drawing from writings on the life course and self-concept, I consider how parental death in childhood shapes subjective age in adulthood. To examine the effects of maternal and paternal death on subjective age, I employ the Midlife Development in the United States Study (MIDUS). A series of linear regression analyses indicates that maternal death during childhood is associated with an older subjective age in adulthood, death of a father does not have a similar influence on subjective age, and that the effect on subjective age is stronger if maternal death occurred during childhood than during other periods of the life course. The findings highlight interconnections between timing of transitions in the life course, linked lives, and the development of self-concept. Subjective age in adulthood seems to hinge on important biographical experiences from childhood, such as parental death, though the processes differ by the gender of the deceased parent.

Although chronological age is invariably fixed to an individual, people differ widely in their perceptions of how old they feel. In modern societies in which age shapes the allocation of resources and constrains life opportunities, concepts such as young-, middle-, and old-age take on important social meaning. Particularly in individualistic Western societies such as the United States, youthfulness is celebrated as a proxy for the cultural values of autonomy and self-sufficiency (Westerhof and Barrett 2005). Though strains such as socioeconomic adversity, poor health, and daily interpersonal stress render some individuals incapable of maintaining a youthful identity (Barrett 2003, 2005), feeling young helps adults maintain a greater sense of well-being (Westerhof and Barrett 2005). Remaining subjectively youthful is associated with increased life satisfaction, morale, and self-esteem (Logan, Ward, and Spizte 1992; Mutran and Reitzes 1981; Westerhof and Barrett 2005), and recent longitudinal evidence even suggests that a young age identity enhances multiple aspects of health and reduces disease among middle-age and older adults (Demakakos, Gjonca, and Nazroo 2007). Age, in short, is an important aspect of identity; life chances are not only affected by its chronological passage, but also by the subjective correlates of lived events. Can an early traumatic event—the loss of a parent

Sociological Inquiry, Vol. 79, No. 1, February 2009, 75–97

DOI: 10.1111/j.1475-682X.2008.00270.x

during childhood—pose lifelong consequences for this aspect of the self? Examining this question will help draw important linkages between the study of self-concept and life course sociology by emphasizing the connections between timing, familial bonds, and the interpretation of one's lived experience.

Subjective aging, like most processes in adulthood, does not materialize in an instant, but stems from lifelong, socially-embedded developmental experiences. An individual's current status, such as widowhood or retirement, and her existing health conditions can influence how age is subjectively understood, but focusing only on the experiences of adulthood as precursors of subjective age interposes the risk of overlooking childhood—a large and formative period of human development.

Because primary socialization experiences help prepare young people to meet the challenges of adulthood, scholars have a great interest in how childhood family contexts and experiences influence status attainment (Biblarz and Raftery 1993), physical health (Hayward and Gorman 2004), and emotional well-being (McLeod 1991). This comprehensive view of the life course evokes the question of whether salient events from childhood influence age identity, even years in the future. For as long as social and behavioral scientists have been concerned with human development, the experience of parental death during childhood has been discerned as a poignant and pivotal life event with long-term consequences.

Recognizing the centrality of familial relationships in people's life experiences, the enduring salience of the death of loved ones, and the ways that social roles operate as important signposts in the life course, this article has two main aims. First, it examines the link between parental death and subjective age[1] in adulthood, asking whether the loss of one's father or mother leads to feelings of older age. Second, it considers whether childhood is a sensitive period for the development of subjective aging, that is, does the loss of a parent during childhood have a stronger effect on subjective age than if the death occurred during adulthood? Exploring both questions can help shed empirical light on the interconnectedness of the life course and self-concept. Identities are not formed instantaneously, but are rooted in the temporal experience of reflexivity and life change (Demo 1992). This article seeks to examine how the timing of a pivotal event in one's life—parental death—is related to one's own sense of lived time.

Theoretical Background

To understand the link between parental death in childhood and the perceptions of one's age, I draw on theoretical perspectives from both the life course and self-concept. Although developments in life course theory have enjoyed wide extension to a number of substantive areas, such as the widening

of socioeconomic inequality and cohort differentiation (O'Rand 1996) and dynamics of criminal desistance (Laub, Nagin, and Sampson 1998), comparatively little theoretical or empirical work has interlaced the life course perspective with self-concept or identity formation. I provide a brief overview of the two theoretical fields and suggest some common ground where both perspectives can inform the current study.

The Life Course

In contrast to stage-centric and life-span psychological theories of adult development, a sociological conception of the life course must account for the varied avenues by which individuals navigate their life journeys and the structural grid-lines that define these pathways (Shanahan 2000). Essentially, the underlying assumption is that the life course is sociogenic, that is, socially significant experiences, role occupancies, and identities give meaning to age and the process of aging (Dannefer 1984).

The life course can be conceived of as a series of interlocking trajectories, anchored in early life and unfolding over time (Elder, Johnson, and Crosnoe 2003). The life course is not static but is experienced in motion, and therefore one's ability to manage dilemmas and surmount challenges sets the stage for ensuing life scenarios. Two key tenets of life course theory help inform the study of parental death and subjective age: linked lives and timing of events.

First, lives are linked through relational structures. One's life course experience is contingent upon the influence of important others, and this social fabric textures an individual's life positively or negatively. For example, Elder (1999) noted that during the Great Depression economic uncertainty weighed on parents, and their struggles, in turn, encumbered the early life experience of their offspring. It is important to consider these linked fates when observing childhood events, as socialization processes, residential arrangements, and attention to primary needs are centered around the family institution during early life (Cooksey, Menaghan, and Mekielek 1997). Indeed, parental relationships are foundational for the development of a sense of self (Rosenberg 1979).

Despite their centrality in the life course, family relationships are obviously not static over time. Norms guiding nuclear families suggest that certain roles and modes of familial interaction are more appropriate for particular stages of life than for others (Settersten and Hagestad 1996). This is especially evident in the case of the parent–child relationship; as people obtain education, embark on career paths, and create their own households, contours of the parent–child relationship are renegotiated and transformed.

The changing nature of this relationship helps elucidate the importance of timing, the second key life course perspective that informs the present study.

Life course theory directs our attention to how the timing of an event shapes its developmental importance. Because childhood is a time of rapid development as well as a chronological precursor to later periods of life, its importance for understanding the broader life course cannot be overstated (Corsaro 1997; Crosnoe and Elder 2004).

Substantial emotional upheaval may leave a deeper mark when an individual is establishing initial impressions of how life ought to unfold than when the individual has undergone extensive identity formation. In both developmental psychology and life course epidemiology literature, this principle refers to a sensitive period in development (Kuh and Ben-Shlomo 1997; Sroufe and Rutter 1984). The concept of a sensitive period is reflected in perspectives such as attachment theory (Bowlby 1969), which posits that parental loss during childhood hinders individuals from developing healthy relational styles and well-being in adulthood.

The consequences of life transitions also hinge on the principle of timing. Transitions, or the change from one state or condition to another, make up the trajectories that shape individuals' lives (Elder, Johnson, and Crosnoe 2003). A stimulating line of research, begun several decades ago by Neugarten, Moore, and Lowe (1965), has documented the social expectations for a number of role transitions, including the "correct" time to marry, to bear children, and to leave home. Though the strength of many of these expectations for the timing of transitions has waned (see Shanahan 2000), some transitions remain quite normative on the chronological timeline, making them deviant if experienced at another juncture. An example of one such "off-time" transition is the death of one's parent during childhood; with growing life expectancy, parental death is increasingly expected to occur during adulthood, especially middle-age (Hagestad 1988).

The ideas of linked lives and the importance of timing have been central concepts for the development of life course theory, but have not been given much attention in the vast literature on the self-concept. One of the goals of this article is to consider whether subjective age, an important component of the self-concept, can be better understood with these insights from the life course.

Integrating Self-Concept with the Life Course

As an enduring topic of sociological research, self-concept has been given a number of definitions and been imbued with some level of conceptual ambiguity (see Stryker and Burke 2000). For my purposes, self-concept refers to "the concept the individual has of himself as a physical, social, and spiritual or moral being" (Gecas 1982:3). A sociological conception of self-concept begins with the assumption that human relationships and interactions underlie

the process of becoming a self (Mead 1934). This process involves perceiving one's self under the terms of socially meaningful categories, such as gender, ethnicity, and age (Howard 2000). Because age is wrapped in symbolic social significance, from its status as a basis of stratification (Riley 1987) to the social valuation of youth (Westerhof and Barrett 2005), how one reconciles his or her perceived age with their actual, chronological longevity sheds light on an important aspect of the self (Settersten and Mayer 1997). Additionally, the importance of presenting favorable and convincing impressions of the self in social interactions (Goffman 1959) suggests that individuals would strive to maintain an appearance of youth in many types of interpersonal encounters.[2]

As numerous authors have argued, the life course is an important overarching social structure in which individuals are situated (e.g., Shanahan 2000). Interestingly, much of the work examining age identity has given little explicit attention to the life course, focusing on current statuses and conditions to the exclusion of early experiences. Incorporating insights from the life course perspective in the study of subjective age may be helpful for several reasons. First, social psychological theorists argue that self-concept is a "moving baseline" which fluctuates across stages of life and development (Demo 1992:304). Different processes underlie one's identity during early childhood, adolescence, and adulthood (Demo 1992). It is important to remember, however, that these stages of life are not truly discrete phases, but are instead part of an interlocking trajectory, each step predicated upon the former. Stated differently, events from early in the life course can be expected to extend into self-concept at a later point in life.

Second, an important part of self-concept is biographical continuity, a sense that one's life has unfolded according to a coherent narrative that draws from an individual's collection of experiences and memories (Hewitt 1989). A life course perspective suggests that the structurally-rooted roles which people occupy at various points in their lifetimes are a central part of this narrative. Illustrating how individuals draw from their biographical repository, Moen, Erickson, and Dempster-McClain (2000) found that many older individuals relocating to congregate living draw from the social roles (e.g., friend, parent) they valued earlier in their lives in constructing aspects of identity in a new residential setting. To the extent that individuals draw from earlier life experiences in the construction of self-concept, the premature exit of an important social role (i.e., son or daughter) can be expected to reverberate well beyond one's early years and influence subjective age well into adulthood. By bringing together perspectives from the self-concept and the life course, this article examines the ways in which age perceptions are a cumulative project, built on early life events in the context of important social roles.

Influences on Subjective Age

A long tradition in social psychology suggests that identifying with a socially valued ideal is a self-enhancing strategy. In this light, the maintenance of youth is a compensatory mechanism that adults use to counteract the internal struggle of growing chronologically older in a society that privileges youth (Heckhausen and Schulz 1998). As individuals move into their midlife years, perceived transitions from young- to middle-age are experienced negatively, as are transitions from middle- to old-age (Logan, Ward, and Spitze 1992). Not surprisingly, many people over the age of 70 years do not relinquish their "middle-age" self-categorization (Bultena and Powers 1978), and distance themselves from the label "elderly" (Zebrowitz 2003). Although those in their 20s and 30s do not wish to be younger, a growing discrepancy develops between individuals' chronological ages and how old they feel as they move from their middle years to older age (Goldsmith and Heiens 1992; Montepare and Lachman 1989). Past findings indicate that maintenance of a youthful identity is a self-enhancing beguilement, as adults able to preserve this appearance have the highest levels of subjective well-being. It is important to note, however, that this phenomenon appears especially salient in the United States, as the association of subjective youthfulness with well-being has been found to be weaker in a German sample than within this country (Westerhof and Barrett 2005).

Prior research has identified a number of factors related to age identity. Briefly, those in good health and high socioeconomic standing are most capable of preserving subjective youth (Barrett 2003). Health, as a multidimensional construct, shapes age identity in numerous ways; the presence of chronic conditions, the subjective perception that one's health is on the decline, and pessimism about the future of one's health each contribute to the sense of feeling older (Barret 2003). Gender and family roles also figure prominently into subjective age. When considering the cultural premium placed upon female physical attractiveness and the centrality of reproductive potential in the social construction of gender, it is unsurprising that women have more incentive than men to retain youthful identities (Barrett 2005). Occupancy of family roles in and of itself does little to affect age identity, but these social roles pattern everyday life, thereby shaping psychosocial resources such as sense of control and efficacy—more proximal influences on age identity (Barrett 2005). Finally, research has identified that sense of age is tied to labor force participation. In early adulthood, having a full-time job shapes the self-view of being an adult (Johnson, Berg, and Sirotzki 2007) and in later life leaving the labor force can be associated with a sense of older age (Mutran and George 1982).

Taken as a whole, the study of age identity has proven a lively field of inquiry for nearly half a decade (Settersten and Mayer 1997). Age identity, or

the subjective component of aging, is important to consider not only because the passage of chronological time involves objective physical, social, and psychological changes, but also because the passage of time is experienced subjectively via comparison to one's peers and reference groups. Life course sociologists have privileged chronological age, but subjective evaluations of age influence well-being in the United States (Westerhof and Barrett 2005), shape investment of socioemotional resources, influence motivation (Cartensen 2006), and even affect physical health (Demakakos, Gjonca, and Nazroo 2007). The passage of years since one's birth date is one way to conceptualize age and aging, but there are multiple other forms of time-based experience, such as subjective age, which are relevant for scholars of the life course. The fact that people undergo common experiences (e.g., parental death, marriage, retirement) at different points in the life course means that interpretations of lived experience and subjective age are understood in reference to others.

At the current juncture, then, life course theory offers a rich backdrop to augment the extant literature on age identity, which has focused on adult conditions, statuses, and life events. A long line of research documents that early experiences shape the remainder of the life course, particularly that childhood disadvantages pose unpropitious consequences far into adulthood—a concept some have referred to as "the long arm of childhood" (Hayward and Gorman 2004). Childhood loss of a parent is a unique type of disadvantage in that (1) it is an emotionally devastating event, breaking up a family unit without anyone's consent (e.g., as opposed to divorce, which is initiated by at least one of the individuals); (2) it involves the loss of a contributor to activities of the household, forcing children's and surviving parents' roles to shift in order to compensate for it; and (3) it is an off-time transition far afield from age-based norms, though more so now than in other periods of history.[3] As such, parental loss is a unique form of disadvantage through which to examine the long-term effects of pivotal early experiences.

Hypotheses

From life course theory's focus on linked lives and the related consideration that a sense of self is understood in the context of peoples' relationship with others, I anticipate that parental death during childhood leaves an indelible imprint on adult subjective age. Specifically, because the loss of a caregiver and provider within the nuclear family both taxes emotional resources and often forces one to take on responsibilities vacated by the deceased parent, I anticipate that parental death hastens the subjective aging process and leads to perceptions of being older. Drawing from the life course perspective's emphasis on timing, I also expect that the effects of parental death are not uniform across one's lifetime; parental death likely has strongest effects if occurring during the

formative period of childhood. In short, the experience of prematurely vacating the role of son or daughter to one's mother or father involves an early, off-time propulsion into the world of adulthood, with its attendant instrumental responsibilities and socioemotional demands. This phenomenon, termed by Elder (1999:80) the "downward extension of adultlike experience," is anticipated to have enduring ramifications for subjective age. To examine these propositions, I test two hypotheses:

H1: Death of a parent during childhood is associated with an older subjective age in adulthood

H2: Death of a parent during childhood is more consequential for subjective age than is parental death during adulthood

These hypotheses are expected to hold after considering the timing of entrance into key life course social roles (workforce participation, marriage, parenthood). Examining such transitions in light of the above hypotheses provides a comparison of other life course transitions, varies the emotional nature of the event (e.g., parental death is typically more traumatic than others), and differentiates the timing of the event (childhood versus young adulthood). In addition, prior literature draws attention to the principal importance of health on subjective aging. Yet in light of meager evidence to suggest a link between parental death and deleterious adult health outcomes, I expect that the above hypotheses will be confirmed after adjusting for current health status. In addition, I control for context of childhood home, current social roles, and relevant demographic covariates.

Data and Methods

Sample

Data were drawn from the National Survey of Midlife Development in the United States (MIDUS). Data collection was undertaken from 1995 to 1996 by the MacArthur Foundation's Network on Successful Midlife Development. The survey first used random-digit-dialing to obtain a sampling frame of all English-speaking noninstitutionalized adults aged 25 to 74 years in the contiguous 48 states, oversampling males between 65 and 74 years. The response rate from these initial telephone interviews was 70 percent. The final stage included a questionnaire mailed to those who participated in the telephone interview, yielding an 86.6 percent response rate. Thus, the overall response rate was 61 percent ($.70 \times .87 = .61$), producing a total sample of 3,032 participants who completed both the telephone and the mail interview. Participants with item-missing data were excluded ($n = 389$), leaving a final study sample of 2,643. Findings were robust to alternate strategies of handling missing data, indicating that listwise deletion did not bias the results.

Subjective Age

The dependent variable used for all multivariate analyses is subjective age. Consistent with past research using these data, this construct was measured by subtracting chronological age from the response to the following question: "Many people feel older or younger than they actually are. What age do you feel most of the time?" (Westerhof and Barrett 2005; Westerhof, Barrett, and Steverink 2003). This results in negative values reflecting younger subjective ages and positive values reflecting older subjective ages. Seven outliers were recoded so that all subjective age scores fell within an observed range of −50 to 50, and the variable was normally distributed.

Parental Death

Parental death during childhood, the main independent variable for this study, was assessed during the initial telephone interview. Respondents were asked if they had lived with their biological mother and father until age 16.[4] If participants responded "no" to either question they were asked for the reason, and separate dummy variables were created for death of mother and death of father.[5]

The death of a parent during the rest of the life course was assessed in the mail interview, which asked whether both biological parents were alive. If respondents indicated that either parent was not alive, they were asked to provide the approximate year when the death occurred. Age of parental death was calculated by subtracting year of parent death from the respondent's year of birth. Dummy variables were created for mothers and fathers separately, denoting whether they died between the subject's age of between 17 and 35 years (young adulthood), 36 and 60 years (middle adulthood), or 61 years and over (older adulthood). In sensitivity analyses, alternative coding specifications were explored, such as using decade-based categories and variations on the young, middle, and older adulthood classification. The conclusions were unaltered regardless of the coding choice. Respondents with living parents are the reference group in regression analyses.

Childhood Home Context

In order to rule out possible spurious or mediating effects on subjective age from childhood, the analyses adjusted for a number of factors within the childhood household. First, a stepparent following parental death could provide emotional support and attend to household tasks that the children would otherwise assume, so I included a dummy variable for whether there was a stepparent in the household during childhood. Another variable was included to measure economic stability of the household, as poorer households may have

been at heightened risk for parental death, and loss of a father, in particular, would be expected to decrease household earnings. Respondents were asked to compare their family's financial situation to other families when they were growing up, reporting a lot better off (1) to a lot worse off (7). Because households can be disrupted in other ways than parental death, a dummy variable was included to indicate whether respondents did not live with their biological parents because of divorce or separation. Including this variable helps rule out the possibility that any form of parental loss—not just death—would affect subjective age. Two final variables measured forms of parental abuse, tapping general levels of discord within the household. For physical abuse, respondents were shown a list of specific actions (e.g., "pushed, grabbed, or shoved you"), and asked to circle how often these events were committed by parents and by others. Respondents were shown a similar list of actions that constitute emotional abuse (e.g., "insulted you or swore at you"). Respondents who indicated that they experienced these events from either their mother or father "often" or "sometimes" were included in the "yes" category, and all others were coded as "no." Though none of the childhood home context variables were hypothesized to influence subjective age, they were intended to control for a constellation of stressors during childhood that could pose threats to life chances and shape personal identity.

Early Life Transitions

Early entrance into age-based social roles is a potential mediating factor for why parental death would be associated with subjective age. If those who lost a parent to death experienced the demands of adult life at an earlier point, they may have undergone key life course transitions earlier and see themselves as older than their peers. Respondents were asked about the timing of several of these transitions: marriage, parenthood, and labor force participation. In order to assess whether life transitions occurred earlier than the norm, it is important to consider subjects in the context of their particular birth cohort. In the specific cases of marriage, parenthood, and labor force entry, gender is another important factor. Therefore, respondents were classified by gender-specific 10-year birth cohorts, with those in the youngest 10th percentile of each category for marriage, parenthood, and labor force entry considered early transitioners (Barrett 2003). A dummy variable was constructed for each of the three transitions, those experiencing an "early" transition into any of the social roles were coded 1. Alternate criteria for early transitions were explored in sensitivity analyses, but the results were unchanged from those presented herein.

Health and Well-Being

Invoking a broad perspective of health, the current study included controls for global ratings of health and sense of personal control. Self-rated health,

ranked by the subject from 1 ("worst possible health") to 10 ("best possible health") was a measure of global health perception. A 12-item scale was used to measure sense of personal control. Respondents were given statements such as the following: "In general I feel I am in charge of the situations in which I live." Each item ranged from 1 ("strongly disagree") to 7 ("strongly agree"), and the 7 negatively worded questions were each recoded so that high values would correspond with high sense of personal control. Taken together, the scale items had adequate reliability ($\alpha = .84$).

Current Social Roles

Roles related to the family and the labor force occupied by an individual are another important factor to consider when studying subjective age, as both institutions are heavily age-graded (Johnson, Berg, and Sirotzki 2007). Key roles to include were those within the family and those within the labor force. Marital status was operationalized with three dummy variables, including currently married, widowed, and divorced. Never married was the omitted reference group in regression analysis. Another dummy variable captured each respondent's status as a parent (1 has any biological children, 0 does not). To account for role occupancy in the labor force, a dummy variable was included for whether the subject was working for pay at the time of the survey.

Demographic Covariates

Chronological age was included in all multivariate models, simply coded as year of birth subtracted from 1995. To capture the possibility of nonlinear effects of chronological age on subjective age, an age-squared term was also included in regression analyses. Gender was also used, coded as 1 for females and 0 for males. Race was coded as a dummy variable, with self-identified Black, Asian, Native American, and "other race" respondents classified as nonwhite. Self-identified white respondents were the reference group. Further refinement in racial categorization was not possible because of the limited number of cases in the racial/ethnic minority groups. Education was coded with several dummy variables (high school/GED [high school equivalency degree] completion, bachelor's degree completion, and less than high school education as the omitted referent in regression analyses).

Analytic Approach

The analysis first began with a simple ordinary least squares (OLS) regression estimating the influences of childhood parental death on subjective age adjusting only for basic demographic covariates. Next, the analysis moved to a life course comparison of the timing of parental death by including dummy variables for death of mother and father at different stages of the life course.

This model examined whether the death of a parent during adulthood would similarly affect subjective age and contradict the "sensitive period" expectation. Third, the childhood home context variables and the indicators of early life transitions were added to see if contextual factors from childhood would make the association spurious or if the early life transition variables mediated the relationship. Finally, the full set of control variables were added to examine whether the effects of early parental death were robust when considering current health status and social roles. Stata 10.0 was used to adjust for post-stratification weights in all regression analyses.

Results

As evidenced by the negative value for subjective age in Table 1, respondents tended to report that they felt younger than their chronological age. From an overview of the descriptive statistics, it is also apparent that death of either parent up to age 16 years was a relatively rare event; about 2 percent of respondents experienced the death of their mothers during childhood and about 5 percent experienced the death of their fathers. For those respondents who experienced the death of their mothers after childhood, the most common period was between the ages of 36 and 60 years (about 21% of respondents). Those whose fathers died after childhood were more evenly split between ages 17 and 35 years (about 21% of respondents) and ages 36 to 60 years (about 25% of respondents). Among the MIDUS sample, the death of one's mother or father past age 60 years was a relatively rare event, partly owing to the fact that the average age of the respondents was about 47 years and therefore many of them could not yet experience parental loss late in life by virtue of their own chronological age. Table 1 presents descriptive statistics for each of the additional variables used in multivariate analysis.

Moving to multiple regression analysis, Table 2 presents four models. Model 1 included only parental death during childhood along with demographic covariates, thereby showing the basic relationship between the main independent variables and the dependent variable. This analysis shows that it was the death of a mother, but not of a father, that was associated with subjective age. Being older was associated with younger subjective age, though the relationship decreased at the highest age levels, as reflected by the age-squared term. Nonwhites also tended to have younger subjective ages.

Supplementary analyses which estimated the model without the adjustment for chronological age and the other demographic variables found that there was no statistically significant relationship between either measure of parental death and subjective age. This finding is better understood upon considering the strong and negative correlation between chronological and subjective age ($r = -.41$; $p < .001$) (i.e., the older one is, the greater the youth bias in subjective

Table 1
Descriptive Statistics of Weighted Midlife Development in the United States Study (MIDUS) Sample (N = 2,643)

	Mean (%)	S.D.
Subjective age (years)	−7.23	9.25
Parental death		
Mom died in R's childhood	2.19%	
Dad died in R's childhood	4.77%	
Mom died—R between 17 and 35 years	9.23%	
Mom died—R between 36 and 60 years	21.11%	
Mom died—R over 60 years	2.50%	
Dad died—R between 17 and 35 years	20.96%	
Dad died—R between 36 and 60 years	24.82%	
Dad died—R over 60 years	1.06%	
Childhood home context		
Stepmom present in R's childhood home	1.00%	
Stepdad present in R's childhood home	4.77%	
Financial situation	3.91	1.28
Parental divorce	12.86%	
Physical abuse	26.41%	
Emotional abuse	36.17%	
Early life transitions		
Marriage	13.02%	
Parenthood	9.95%	
Labor force participation	14.57%	
Health and well-being		
Self-rated health	7.37	1.63
Sense of control	67.82	11.70
Current social roles		
Married	64.93%	
Divorced	15.13%	
Widowed	5.41%	
Never married	14.53%	
Parent	62.13%	
Working	62.32%	
Demographic covariates		
Age (years)	46.62	13.00
Female	50.36%	
Nonwhite	10.97%	
Less than high school/GED	8.32%	
High school/GED	60.88%	
College	30.80%	

R = respondent.

Table 2
Regression of Subjective Age on Independent Variables in the Midlife Development in the United States Study (MIDUS) Weighted Sample

	Subjective age (years)			
Parental death	Model 1	Model 2	Model 3	Model 4
Mom died in R's childhood	2.91**	2.91**	2.93**	3.15***
	(.99)	(1.02)	(1.02)	(.96)
Dad died in R's childhood	.99	−.21	−.58	−.24
	(.87)	(.88)	(.94)	(.84)
Mom died—R between 17 and 35 years		−.36	−.28	−.49
		(.64)	(.64)	(.60)
Mom died—R between 36 and 60 years		−.43	−.47	−37
		(.64)	(.64)	(.60)
Mom died—R over 60 years		.82	.81	.77
		(1.69)	(1.70)	(1.49)
Dad died—R between 17 and 35 years		−.01	−.05	−.00
		(.50)	(.50)	(.47)
Dad died—R between 36 and 60 years		−1.08	−1.08	−1.04
		(.62)	(.62)	(.59)
Dad died—R over 60 years		−.18	−.22	−1.45
		(1.76)	(1.79)	(1.61)
Childhood home context				
Stepmom present in R's childhood home			−.24	−.65
			(1.42)	(1.33)
Stepdad present in R's childhood home			1.02	.21
			(1.11)	(.99)

Table 2
(*Continued*)

	Subjective age (years)	
Financial situation	.29	.13
	(.17)	(.16)
Parental divorce	−.81	−.50
	(.61)	(.55)
Physical abuse	−.22	−.49
	(.56)	(.54)
Emotional abuse	.77	−.07
	(.49)	(.47)
Early life transitions		
Marriage	.37	−.15
	(.66)	(.61)
Parenthood	−.40	−.36
	(.84)	(.77)
Labor force participation	−.60	−.56
	(.54)	(.52)
Health and well-being		
Self-rated health		−1.30***
		(.15)
Sense of control		−.12***
		(.02)
Current social roles		
Married		.71
		(.53)
Divorced		−.05
		(.71)
Widowed		−.30
		(1.30)
Parent		−.32
		(.40)

(*Continued*)

Table 2
(*Continued*)

	Subjective age (years)			
Working				−.46
				(.41)
Demographic covariates				
Age (years)	−.57***	−.52***	−.55***	−.59***
	(.10)	(.10)	(.10)	(.10)
Age^2 (years)	.00**	.00*	.00**	.00**
	(.00)	(.00)	(.00)	(.00)
Female	.13	.11	.14	−.29
	(.37)	(.37)	(.37)	(.34)
Nonwhite	−2.11***	−2.13***	−2.03***	−1.55**
	(.58)	(.58)	(.59)	(.55)
High school/GED	−.29	−.31	−.17	.47
	(.82)	(.81)	(.81)	(.72)
College	−1.33	−1.36	−1.11	−.13
	(.82)	(.81)	(.83)	(.72)
Constant	13.52***	12.41***	11.72***	30.96***
	(2.35)	(2.36)	(2.46)	(2.87)
Observations	2,643	2,643	2,643	2,463
R-squared	.19	.19	.19	.29

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

Notes: In Models 1 and 2, respondents whose parents were alive or died after childhood are reference group. In Model 3, respondents whose parents did not die during adulthood are the reference group. In Model 4, respondents with living parents are the reference group. Unstandardized coefficients are presented; robust standard errors are in parentheses; R = respondent; GED = high school equivalency degree; never being married and having less than a high school degree are reference group categories.

age). In addition, respondents who lost either parent in childhood were older than respondents who did not experience parental death in childhood (mean ages 51.91 years and 46.24 years, respectively). Chronological age, therefore, had a strong suppression effect on the influence of maternal death; older participants were at higher likelihood of losing a parent as a child, yet they also tended to have a younger subjective age which effectively masked the relationship between maternal death and subjective age.

Next, Model 2 examined whether parental loss during other periods of the life course may have similar effects on the dependent variable. Perhaps the experience of parental death leaves an imprint on subjective age regardless of whether it occurs in childhood or adulthood, and therefore it is necessary to test the effects of losing a mother or father during other meaningful periods of the life course. None of the dummy variables for parental loss during periods of the respondents' adulthood were significantly associated with subjective age in the model, though death of mother during childhood remained significant ($\beta = .05$; $p < .01$).

Thus far, the findings give partial support to the study hypotheses. Adjusting for age, maternal, but not paternal, death during childhood increases subjective age, and parental death during other periods of the life course did not have a statistically significant effect. Do these patterns remain when including contextual factors in the childhood home and for early transitions into key life course roles? Model 3 introduced these controls to examine the robustness of the findings from the preceding models. Maternal death during childhood continued to exert a statistically significant effect on subjective age. Interestingly, none of the factors from childhood were significant predictors of subjective age, nor were any of the potential role transitions mediators.

Finally, Model 4 introduced the full range of covariates, including health and well-being and current social roles. If these proximal factors were to diminish the relationship of parental death during childhood to subjective age, the assumption that parental death leaves a direct, indelible imprint on subjective age would need to be reevaluated. Nevertheless, results from the fully adjusted model still support the research hypotheses. Respondents whose mother died before they were 16 years old had subjective ages that are on average 3.15 years older than their counterparts who did not experience such a loss ($\beta = .05$; $p < .001$).

As anticipated from past findings on age identity, each facet of personal health was associated with subjective age. Respondents with higher self-rated health and a stronger sense of control tended to have younger subjective ages. None of the social role statuses were related to subjective age. As in the earlier models, respondents who were older and nonwhite tended to have younger subjective ages ($\beta = -.85$; $p < .001$ and $\beta = -.06$; $p < .01$, respectively). The age-squared term was significant and positive, indicating a nonlinear relationship

between chronological age and subjective age, such that the line essentially flattens in later life. Supplementary models (not shown) entered in health variables and social role variables in blocks to examine whether these factors mediated the relationship between childhood parental death and subjective age in adulthood, but the coefficient for the mother's death variable changed only slightly and retained its same level of significance when these nested models were analyzed.

Discussion

This article set out to examine whether parental death during childhood, a formative period of human development, would lead to older subjective age during adulthood. Pivotal, disruptive events experienced "off-time" likely bring premature closure to life periods (e.g., childhood) and alter comparisons with peers who are chronologically similar but differ greatly in lived experience. Considering the dual importance of early experiences and intimate social bonds on the shaping of the life course, I expected that parental death would leave an indelible imprint on age-based aspects of the self-concept.

Two hypotheses were tested. The first tested whether death of a parent up to age 16 years was related to an older subjective age in adulthood, and the second tested whether the effect of parental death on subjective age was unique to the childhood years of the life course. Partially confirming the first hypothesis, the death of a respondent's mother up to age 16 years led to an older subjective age. What makes these findings most striking is that subjective age was measured in adulthood and observed across a wide range of ages. Therefore, adjusting for age and a host of other variables controlling for current statuses, experiencing maternal death early in the life course left a lasting imprint on subjective age—decades into the future.

The second hypothesis was also partially confirmed, as parental death during childhood had a stronger effect on subjective age than did parental death during other points in the life course. Contrary to both hypotheses, however, only maternal death manifested an effect on subjective age; death of fathers was not found to be consequential for the outcome in question. Whereas the role of father in American nuclear families has been typically focused upon financial support of the household, the motherhood role has been characterized by overt concern with socialization, primary caregiving and nurturance, and the management of day-to-day family interaction. The socioemotional vacuum created by a maternal loss apparently has deeper repercussions than the sting of paternal death. Indeed, past research points to the psychological importance of maternal relationships, showing that the childhood death of a mother, but not of a father, plays an important role in the development of psychiatric illness (Brown, Harris, and Copeland 1977). Related to the current study, losing a mother to death brings premature closure to the role of child and forces children to adapt and to

assume responsibility for many of the behaviors that mothers would otherwise oversee (Davidman 2000); this early adaptation may impart an enduring sense of feeling old for one's age relative to one's peers, corresponding with a "downward extension of adulthood" (Elder 1999:80).

One of the central research questions for this study was whether childhood is an important seeding ground for subjective age in adulthood. In life course terminology, are these early years a sensitive period? If childhood is indeed a sensitive period for the subjective age facet of self-concept, then the traumatic, permanent loss of a caregiver, experienced as an off-time transition, could be expected to resonate far beyond childhood. The results of this study partially support the argument that childhood is indeed a sensitive period for the development of subjective age.

In attempting to uncover why the early experience of parental death would influence subjective age, intervening variables were explored such as the timing of role transitions, as well as current health and social roles. However, none of these variables explained the relationship between maternal death and subjective age, supporting the idea that the early experience of maternal death leaves an independent, indelible imprint on subjective age. Furthermore, because parental death across other points in the life course was not consequential, it seems that childhood, in particular, plays an important part in the development of the aging component of self-concept. Although personal control failed to mediate the relationship between childhood maternal death and subjective age, there may be other, unobserved psychosocial mechanisms accounting for the older subjective ages of those who lost mothers during childhood. The lack of an observed intermediating variable to explain the relationship provides an intriguing direction for future research—why might the off-time dissolution of the mother/child dyad leave such a lasting imprint on subjective age? At this point there remains a considerable gap in theoretical models linking childhood experience to adulthood, particularly in the interplay between decision-making agency and the institutional structures by which young people adapt to adversity and resolve life dilemmas (Shanahan 2000). More generally, there has been inadequate dialogue between life course theorists and scholars of social psychology, a limitation that confines our understanding of the self and its relationship to temporality (George 1996).

As for the current study, a specific limitation was its cross-sectional design. Although the typical concerns about time-order and causation are somewhat attenuated because childhood events necessarily precede adult age identity, the data do not allow for an analysis of cohort effects. Longitudinal data would allow for the explicit differentiation of cohort and age effects in regression models. The cohort issue is especially relevant because the parental death experience was much more common among older subjects (i.e., earlier

cohorts) whose parents lived in a historical context predating many of the medical advances and the understanding of acute and chronic illnesses that the parents of younger subjects took for granted (Hagestad 1988). Cohorts are an important structural facet of social life (Riley 1987) and likely has bearing on age identity and other aspects of self-concept. This is a general concern for the literature on subjective age because past findings that are interpreted as age effects in prior studies may be partially the result of cohort differences.

Gender differences are another important issue for future research, as the composition of the relationship (mother–daughter, mother–son) shapes emotional resources exchanged and the role expectations following death, such that each scenario may be expected to have different effects on the self-concept. The relatively small number of cases experiencing a mother or a father's death limited an in-depth gender analysis. Future research with larger samples may be better able to disentangle such gender by parental death interactions.

Despite the limitations of this study, however, the findings raise several implications for research on the life course and self-concept. First, this study adds to the growing body of literature indicating that early experiences have far-reaching influence into later periods of the life course. Much has been written about the physical and mental health costs of early disadvantage, or "the long arm of childhood" (Hayward and Gorman 2004). However, studies that explore age identity have focused mainly on adult statuses and conditions, such as health and social role occupancy (Barrett 2003, 2005; Johnson, Berg, and Sirotzki 2007; Logan, Ward, and Spitze 1992; Westerhof and Barrett 2005; Westerhof, Barrett, and Steverink 2003). This article, on the other hand, examines whether earlier events—in some cases over half a century in the past—can have an enduring influence on the time-based aspect of the self. The findings suggest that there is continuity between early experiences and one's sense of age. As persons evaluate how old they feel in the context of socially meaningful conceptions of age, the early experience of maternal death brings perceptions of being older. The trauma of losing a mother early in the life course certainly has a profound immediate impact upon children, but it also has an enduring residual influence in its association with age identity, which has potential implications on adult health and well-being (Demakakos, Gjonca, and Nazroo 2007). Self-concept and its effects on life chances are based on temporal forces (Demos 1992); the timing of a pivotal life event—maternal death—shapes one's sense of age, a fundamental aspect of identity (Howard 2000).

Second, these findings underscore the interconnection between timing and the importance of intimate social relationships. Familial relationships are an important example of linked lives in the life course, and the rupture of these relationships can be expected to have an impact on an individual's sense of self (Elder 1999). Prior research, however, suggests that the effects of familial death

are not uniform across all stages of adulthood. For example, middle-age adults reported worse health if they experienced the recent loss of a sibling, whereas the adverse health effects were much milder if the loss was during young or older adulthood (Perkins and Harris 1990).

Future work can utilize longitudinal data to examine whether parental death affects the change in subjective age over time, and to see whether roles and statuses in adulthood mediate the change in subjective age over time. Indeed, examining the phenomena over time as a dynamic construct would be an ideal approach. Although past research has also mainly consisted of cross-sectional measurements of subjective age (Barrett 2003, 2005; Westerhof and Barrett 2005; Westerhof, Barrett, and Steverink 2003), this article has attempted to utilize data from earlier points in the life course to shed light on the early origins of subjective age. In doing so, it has highlighted life course principles of timing and linked lives. Other research can build upon the attempt to connect these tenets of life course theory to the development of self-concept and the various components of personal identity.

ENDNOTES

*I thank Kenneth Ferraro, Eugene Jackson, Timothy Owens, and Tetyana Shippee for helpful comments on an earlier version of this manuscript. The data were made available by the Inter-university Consortium for Political and Social Research, Ann Arbor, MI. Neither the collector of the original data nor the Consortium bears any responsibility for the analyses or interpretations presented here. Direct all correspondence to Markus Schafer, Center on Aging and the Life Course, Purdue University, Young Hall, 302 Wood Street, West Lafayette, IN 47907-2018; phone: 765 494 1631; e-mail: mhschafe@purdue.edu.

[1]In this study, I refer to the dependent variable as "subjective age." Although past studies have called an identical measure "age identity," I elected not to use the same terminology. Using a single indicator to capture identity, a theoretically rich concept in social psychology, may be too simplistic an approach and an imprecise use of the term. However, I do refer to "age identity" when referencing the literature using that language.

[2]Of course, presenting a youthful appearance may not be advantageous in many social settings. The appearance of youth may be a drawback for achieving legitimacy in roles associated with tradition or maturity (e.g., as a judge or medical doctor). In general, however, the cultural desirability of physical attractiveness, vigor, open-mindedness, and technological savvy—characteristics often associated with youth—makes the presentation of youthfulness desirable in many social situations.

[3]At turn of the twentieth century, nearly one in four children in the United States could expect to experience parental death before age 15 years; after nearly a century, the risk dropped to about one in 20 (Hagestad 1988).

[4]The MIDUS interviewer asked why the respondent did not live with their biological parents, but did not ask about death occurring for a nonbiological parent.

[5]Although the MIDUS survey considered age 16 years as the cut-off point for childhood for several questions related to early life, I explored alternative coding specifications for childhood, such as age 12 years and below. The conclusions did not differ from those presented herein.

REFERENCES

Barrett, Anne E. 2003. "Socioeconomic Status and Age Identity: The Role of Dimensions of Health in the Subjective Construction of Age." *Journal of Gerontology: Social Sciences* 58B:S101–109.

———. 2005. "Gendered Experiences in Midlife: Implications for Age Identity." *Journal of Aging Studies* 19:163–83.

Biblarz, Timothy J. and Adrian E. Raftery. 1993. "The Effects of Family Disruption on Social Mobility." *American Sociological Review* 58:97–109.

Bowlby, John. 1969. *Attachment and Loss. Vol. I: Attachment*. New York: Basic.

Brown, George W., Tirrill O. Harris, and John R. Copeland. 1977. "Depression and Loss." *British Journal of Psychiatry* 130:1–18.

Bultena, Gordon L. and Edward A. Powers. 1978. "Denial of Aging: Age Identification and Reference Group Orientations." *Journal of Gerontology* 33:748–54.

Cartensen, Laura L. 2006. "The Influence of a Sense of Time on Human Development." *Science* 312:1913–15.

Cooksey, Elizabeth C., Elizabeth G. Menaghan, and Susan M. Mekielek. 1997. "Life Course Effects of Work and Family Circumstances on Children." *Social Forces* 76:637–67.

Corsaro, William A. 1997. *The Sociology of Childhood*. Thousand Oaks, CA: Pine Forge.

Crosnoe, Robert and Glen H. Elder Jr. 2004. "From Childhood to the Later Years: Pathways of Human Development." *Research on Aging* 26:623–54.

Dannefer, Dale. 1984. "Adult Development and Social Theory: A Paradigmatic Reappraisal." *American Sociological Review* 49:100–16.

Davidman, Lynn. 2000. *Motherloss*. Berkeley, CA: University of California Press.

Demakakos, Panayotes, Edlira Gjonca, and James Nazroo. 2007 "Age Identity, Age Perceptions, and Health: Evidence from the English Longitudinal Study of Ageing." *Annals of the New York Academy of Sciences* 1114:279–87.

Demo, David H. 1992. "The Self-Concept over Time: Research Issues and Directions." *Annual Review of Sociology* 18:303–26.

Elder, Glen H. Jr. 1999. *Children of the Great Depression: Social Change in Life Experiences*. 25th anniversary ed. Boulder, CO: Westview Press.

Elder, Glen H. Jr., Monica K. Johnson, and Robert Crosnoe. 2003. "The Emergence and Development of Life Course Theory." Pp. 3–19 in *Handbook of the Life Course*, edited by J. T. Mortimer and M. J. Shanahan. New York: Plenum.

Gecas, Viktor. 1982. "The Self-Concept." *Annual Review of Sociology* 8:1–33.

George, Linda K. 1996. "Missing Links: The Case for a Social Psychology of the Life Course." *The Gerontologist* 36:248–55.

Goffman, Erving. 1959. *The Presentation of Self in Everday Life*. New York: Doubleday and Company.

Goldsmith, Ronald E. and Richard A. Heiens. 1992. "Subjective Age: A Test of Five Hypotheses." *The Gerontologist* 32:312–17.

Hagestad, Gunhild O. 1988. "Demographic Change and the Life Course: Some Emerging Trends in the Family Realm." *Family Relations* 37:405–10.

Hayward, Mark D. and Bridget K. Gorman. 2004. "The Long Arm of Childhood: The Influence of Early-Life Social Conditions on Men's Mortality." *Demography* 41:87–107.

Heckhausen, Jutta and Richard Schulz. 1998. "Developmental Regulation in Adulthood: Selection and Compensation via Primary and Secondary Control." Pp. 50–77 in *Motivation and Self-Regulation across the Life Span*, edited by C. S. Dweck and J. Heckhausen. New York: Cambridge University Press.

Hewitt, John P. 1989. *Dilemmas of the American Self*. Philadelphia, PA: Temple University Press.

Howard, Judith A. 2000. "Social Psychology of Identities." *Annual Review of Sociology* 26:367–93.

Johnson, Monica K., Justin A. Berg, and Toni Sirotzki. 2007. "Differentiation in Self-Perceived Adulthood: Extending the Confluence Model of Subjective Age Identity." *Social Psychology Quarterly* 70:243–61.

Kuh, Diana and Yoav Ben-Shlomo. 1997. *A Life Course Approach to Chronic Disease Epidemiology*. New York: Oxford University Press.

Laub, John H., Daniel S. Nagin, and Robert J. Sampson. 1998. "Trajectories of Change in Criminal Offending: Good Marriages and the Desistance Process." *American Sociological Review* 63:225–38.

Logan, John R., Russell Ward, and Glenna Spitze. 1992. "As Old as You Feel: Age Identity in Middle and Later Life." *Social Forces* 71:451–67.

McLeod, Jane D. 1991. "Childhood Parental Loss and Adult Depression." *Journal of Health and Social Behavior* 32:205–20.

Mead, George H. 1934. *Mind, Self, and Society*. Chicago, IL: University of Chicago Press.

Moen, Phyllis, Mary A. Erickson, and Donna Dempster-McClain. 2000. "Social Role Identities among Older Adults in a Continuing Care Retirement Community." *Research on Aging* 22:559–79.

Montepare, Joann M. and Margie E. Lachman. 1989. "'You're Only as Old as You Feel': Self-Perceptions of Age, Fears of Aging, and Life Satisfaction from Adolescence to Old Age." *Psychology and Aging* 4:73–78.

Mutran, Elizabeth and Linda K. George. 1982. "Alternative Methods of Measuring Role/Identity: A Research Note." *Social Forces* 60:866–76.

Mutran, Elizabeth and Donald Reitzes. 1981. "Retirement, Identity, and Well-Being: Realignment of Role Relationships." *Journal of Gerontology* 36:733–40.

Neugarten, Bernice L., Joan W. Moore, and John C. Lowe. 1965. "Age Norms, Age Constraints, and Adult Socialization." *American Journal of Sociology* 70:710–17.

O'Rand, Angela M. 1996. "The Precious and the Precocious: Understanding Cumulative Disadvantage and Cumulative Advantage over the Life Course." *The Gerontologist* 36:230–38.

Perkins, H. W. and Lynne B. Harris. 1990. "Familial Bereavement and Health in Adult Life Course Perspective." *Journal of Marriage and the Family* 52:233–41.

Riley, Matilda W. 1987. "On the Significance of Age in Sociology." *American Sociological Review* 52:1–14.

Rosenberg, Morris. 1979. *Conceiving the Self*. New York: Basic Books.

Settersten, Richard A. Jr. and Gunhild O. Hagestad. 1996. "What's the Latest? Cultural Age Deadlines for Family Transitions." *The Gerontologist* 36:178–88.

Settersten, Richard A. Jr. and Karl U. Mayer. 1997. "The Measurement of Age, Age Structuration, and the Life Course." *Annual Review of Sociology* 23:233–61.

Shanahan, Michael J. 2000. "Pathways to Adulthood in Changing Societies: Variability and Mechanisms in Life Course Perspective." *Annual Review of Sociology* 26:667–92.

Sroufe, L. Alan and Michael Rutter. 1984. "The Domain of Developmental Psychopathology." *Child Development* 55:17–29.

Stryker, Sheldon and Peter J. Burke. 2000. "The Past, Present, and Future of an Identity Theory." *Social Psychology Quarterly* 63:284–97.

Westerhof, Gerben J. and Anne E. Barrett. 2005. "Age Identity and Subjective Age Well-Being: A Comparison of the United States and Germany." *Journal of Gerontology: Social Sciences* 60B:S129–36.

Westerhof, Gerben J., Anne E. Barrett, and Nardi Steverink. 2003. "Forever Young? A Comparison of Age Identities in the United States and Germany." *Research on Aging* 25:366–83.

Zebrowitz, L.A. 2003. "Aging Stereotypes: Internalization or Innoculation? A Commentary." *Journal of Gerontology: Psychological Sciencs* 58:214–15.