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Age Identity in Context: Stress and the Subjective Side of Aging

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The passage of time is fundamentally experienced through people's interaction with their social worlds. Life-course scholars acknowledge the multiple aspects of time-based experience but have given little attention to age identity in a dynamic context. Drawing from a stress-process model, we expected that turbulence within people's family relations and health declines would produce increases in subjective age. Family role transitions were also examined as potential factors that would hasten subjective aging, but only to the extent that they produced stress. We used the Midlife Development in the United States study, a nationally representative longitudinal survey. Regression results show that turbulence within one's family accelerated age identity and that the effect of diminishing psychosocial resources explained this relationship. For the most part, however, changes within family roles did not affect age identity. On the other hand, the incidence of chronic health problems increased subjective ages, and this relationship too was mediated by the depletion of psychosocial resources. The findings demonstrate an interconnection between the stress process and age identity. Broadening our conception of time-based experience with attention to the stress process offers exciting directions for future theory and research in life course sociology.

Keywords: age identity, stress, life course, subjective age, health, family, role transition

The passage of time is so fundamental a process that it is often taken for granted in the study of the life course. How could we possibly describe key processes in sociology or in social gerontology such as the accumulation of advantage, the transitioning through social roles, and the debilitating trajectories of chronic illness apart from references to time? Overlapping with the obvious chronological continuum on which life events occur, however, is another, internalized clock. This subjective sense involves people's active attempts to slow down or speed up the passage of time (Flaherty 2002), as well as people's construction of an age-based identity based on present life conditions (Johnson, Berg, and Sirotzki 2007; Logan, Ward, and Spitze 1992; Westerhof and Barrett 2005) and pivotal life experiences from their pasts (Schafer 2009).

This paper builds on age identity research and considers stress-based shifts in age identity over a ten-year period. It is one of the few empirical studies of which we are aware that treats age identity not as a static measure from a single point in time, but as a *dynamic* quality which can fluctuate in relation to other events in a person's world. Past work emphasizes that age identities are strongly tied to characteristics of the body, such as health status (Barrett 2003; Charmaz 1991; Furman 1997). This paper builds on that prior work and directs attention to several levels of social abstraction: (1) health status (the individual

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herself); (2) role occupancies (the individual in relation to her social world); and (3) turmoil within the lives of primary family ties (the individual's intimate social world itself).

In considering why each of these three factors may impinge on time-based evaluations such as age identity, it is helpful to forge connections between life-course sociology and other areas of scholarship that investigate how humans interact with time. Stress is a strong and unifying scientific concept for addressing processes related to age and time. Accordingly, we borrow from incipient life-course thinking in the life sciences—alongside recent findings from social psychology—and draw connections between the stress process and aging. Stress wears down reserves at multiple levels of scientific observation. From cells (Epel et al. 2004), to organs (Kelly, Hurtzman, and Daniels 1997), to psychological fortitude (Foster, Hagan, and Brooks-Gunn 2008), stress produces the likeness of being *older* for a given chronological age. The connection between physical and subjective "weathering" (Foster et al. 2008) suggests that a stress-induced acceleration of aging is as plausible in the interview setting as it is under the microscope.

Our chief question is this: How do life events alter the age identity of adults over the course of a decade? In light of past research, we are certainly mindful of how health declines may correspond with changes in age identity. We also expect, however, that as fundamentally social creatures, another part of what regulates people's age identity are significant events in their social worlds. Using a national longitudinal survey, this paper therefore also focuses on changes in family role relations and strains within families. We see the stress process as a unifying perspective for explaining why turbulence—whether located in the body or within one's intimate social world—alters age identity. Stress likely wears down the very psychosocial resources (e.g., sense of control and positive affect) which enable the maintenance of a youthful identity (Barrett 2005). Thus, our analyses will be sensitive to factors which potentially mediate the relationship between stressors and age identity.

Before examining the empirical data, however, we first provide an overview of the stress process and its relation to aging. Then, we provide a brief discussion of age identity as an important aspect of aging and the factors, beyond chronological time, which are expected to make age identities grow older over 10 years.

CHANGES IN AGE IDENTITY AND THE STRESS PROCESS

The idea that stress is a graying force tends to pop in and out of the media's attention, and has garnered public interest regarding whether prominent people appear to be "aging well" (e.g., Sellers 2009). Though social scientists are often rightfully wary of sensational claims splashed across newspaper headlines, the stress and aging connection has become increasingly undergirded by pathbreaking aging research in the life sciences. As one example, an innovative line of research has recently confirmed that chronically stressed people have older "biological ages," as demonstrated by evidence at the cellular level (Damjanovic et al. 2007; Simon et al. 2006). Simply put, stress makes people weaker and more vulnerable, though "the exact mechanisms that connect the mind to the cell are unknown" (Epel et al. 2004). Though in early stages, social scientists have offered corroborating evidence of how stressful events precipitate similar aspects of premature aging. Two recent studies using multiple waves of the Add-Health survey find that hardship during childhood (e.g., neglect from parents, neighborhood instability) hastens the sense of adulthood among people in their late teens to age 22 (Foster et al. 2008; Johnson and Mollborn 2009). Foster and colleagues (2008), in fact, show that stressors trigger both early menarche in childhood *and* early identification as an adult, thus begetting a process of both physical and subjective "weathering" early in the life course. Similar to their life science colleagues, however, the authors of both Add-Health studies have yet to fully and conclusively explicate the precise mechanisms

linking stress and age identity. Exploring the psychosocial mechanisms will be at least a step in that direction.

One of the imperatives for understanding *how* stressors influence age constructs (biological and subjective alike) is to adopt a theoretical perspective which clearly specifies the stress process. In sociology, stress theory maintains that negative events present a burden that, unless shielded by protective resources, will compromise mental and physical well-being (Pearlin 1989; Thoits 1995). Stress is typically conceptualized as a process in which stressors (e.g., negative life events) are the basic independent variables. Social psychologists have provided much-needed nuance to the basic idea of stressors by addressing the meaning that people attach to social identities, a factor which shapes the stressfulness of life events (Marcussen, Ritter, and Safron 2004; Thoits 1991). Family roles, for instance, are particularly consequential for identity (Reitzes and Mutran 2002), and it is therefore plausible that problems involving the lives of family would be more stressful than problems in the lives of acquaintances or celebrities.

Though stressors increase stress-related outcomes, resources (e.g., psychosocial measures of well-being) act as protectors. A sense of personal control, for instance, endows people with the confidence to address unfavorable life circumstances and to push on (Thoits 1995). Likewise, possessing positive affect helps cast stressful events in a better light. Positive affect is a fairly stable trait, but is responsive to life circumstances such as stressful events (Watson and Walker 1996).

As Ensel and Lin (1991) show in their influential piece, there are a number of hypothetical ways to configure the relationship between these protective resources (e.g., personal control, positive affect) and social stressors in regards to an outcome of the stress-process model. Consistent with their findings and with subsequent empirical work (e.g., Martin, Grunendahl, and Martin 2001), we proceed under the assumption that psychosocial resources—diminished by stressful *events*—mediate the association between stressor and outcome. This is a *deterioration model*, as Ensel and Lin (1991) termed it. Stressors, such as turbulence within one's family, essentially chip away at the resources which otherwise protect against stress; waning resources decrease well-being, thus serving as the mediating factor between stressor and outcome.

Psychological distress is most commonly assessed as an outcome measure of the stress process, though many studies also examine physical health as a consequence (e.g., Lin and Ensel 1989). Age identity, the focus of this paper, is only beginning to emerge as a dependent variable of the stress process (Foster et al. 2008). The recent evidence discussed above suggests that age identity is a very relevant outcome, particularly because it is an important life-course aspect of well-being and because the stress process is an ideal perspective for aligning with social gerontology (see Pearlin 1996 for an expanded discussion). Identifying psychosocial mechanisms is a next step.

We focus on personal control and positive affect as two psychosocial resources that may be compromised by stressful conditions and therefore increase vulnerability to feeling older. As we will briefly show in the sections below, both types of psychosocial resources can be dampened by health problems, by stressful role losses, and by misfortune in the lives of intimate others. Furthermore, both psychosocial resources are associated with the maintenance of youthful identities (Barrett 2003, 2005; Bowling et al. 2005). Barrett (2005), for instance, argues that "maintaining a younger—and more age-discrepant—identity as one ages is an active reinterpretation of one's chronological age that requires a high degree of [perceived] control over critical life domains" (178). Others have noted how self-enhancing, compensatory youthful identities are harder to maintain when stressful conditions are induced (e.g., Zebrowitz 2003), suggesting that a sense of powerlessness and emotional distress compromises people's ability to project their ideal self-presentations. However, we have only been able to identify one

cross-sectional study on age identity among adults that has explicitly incorporated the concept of stress, and the measures used related mostly to perceived satisfaction with work or romantic partnership rather than drawing from the stress process in a more systematic way (Barrett 2005). Using Ensel and Lin's (1991) deterioration model, we seek to apply the stress model to age identity.

AGE IDENTITY

It perhaps comes as little surprise that in Western societies where good health and youthfulness are celebrated, most adults seek to maintain a young age identity (Barrett 2003; Logan et al. 1992; Westerhof et al. 2003). Subjective youthfulness in turn is associated with well-being (Westerhof and Barrett 2005), confidence about abilities (Schafer and Shippee 2010), and even health stability in older age (Demakakos, Gjonca, and Nazroo 2007). Extant literature suggests that age identities are produced by a complex constellation of factors which influence how people interact in society, such as health (Barrett 2003; Logan et al. 1992; Westerhof and Barrett 2005), workforce participation (Johnson et al. 2007), and familial stressors which limit one's sense of control (Barrett 2005).[1]

Though scholarship on age identity has brought insight to an important element of the self, it has until now considered the topic almost exclusively as a static state in a single moment of time.[2] This is a peculiar predicament because its subject is an inherently temporal phenomenon; age is an anemic concept without a dynamic notion of time. In a chronological sense, age is continually in flux, albeit changing as a linear function in our metric of choice (e.g., the span of time it takes to orbit the sun, as Westerners typically keep long-run social time). From the standpoint of social psychology and the stress model, the more interesting theoretical question is how age identity may vary in correspondence with other significant life events. We will start with the most distal level and furthest outside of the individual herself (turbulence within the lives of family relations), move to the intermediate level that connects people to their social world (role positions and changes in roles), and wrap up with the most micro, individualistic level (problems within the body). Each of these levels represents locations of potential stressors in social life, and by extension, possible influences on age identity change. These factors have also been considered, to various degrees, in past age identity research.

Potential Influences on Age Identity

For a paper concerned with people in the context of time, change, and biographical development, life-course theory is a good perspective to emphasize from the outset (Elder 1994). In Elder's thinking, significant others—particularly people's spouses, children, and parents—are collectively enmeshed in mutually influential life trajectories. Essentially, primary social groups are foundational for understanding people's experiences, and it is the very durability and continuity of these relationships which make them so meaningful for people's life chances and well-being (Gecas 2003). For the current inquiry, events in the lives of significant others must

[1] Role transitions have long been considered seminal in the social construction of age (Neugarten, Moore, and Lowe 1965), but research demonstrates that they do not have uniform effects on age identity across age groups or aspects of age identity. Mainly, transitions in family and work life contribute to subjective adult attainment among late adolescents and people in their early twenties (Benson and Furstenberg 2007; Johnson et al. 2007). Most studies among middle- and older-age adults, however, find that age-graded transitions such as widowhood or retirement *do not* influence age identity when health is controlled (e.g., Logan et al. 1992; Westerhof et al. 2003).

[2] We have identified only one empirical article with our quantitative measure of age identity using two waves of data, but it was essentially a descriptive study of elderly Finnish adults (Uotinen et al. 2006). One recent study observed a sample of 19-year-old Philadelphians over a 2-year period to see whether role and responsibility changes (e.g., starting an independent household, parenthood) elicit the subjective attainment of adulthood (Benson and Furstenberg 2007). Several older descriptive studies utilizing longitudinal data have also used qualitative categorical variables assessing whether people considered themselves to be "middle-aged" or "very old" at two time points (Bultena and Powers 1978; Markides and Boldt 1983).

certainly be considered if we wish to understand changes in people's own identities over a decade. Components of well-being, including age identity (Westerhof and Barrett 2005), are not an individual's own project—they are influenced by the lives of important others.

What sorts of long-term relationships might impinge on a person's sense of age and well-being? Although potentially myriad, family ties are a logical set to examine and are the focus for this study. The role of parent does not end once children are out of the house, but is better understood as a "lifelong trajectory of shifting demands and responsibilities" (Milkie, Bierman, and Schieman 2008:87). When these linked lives are perturbed, we expect a person to be shaken. Not surprisingly, then, when adult children are burdened by a cumulative load of problems, parents' stress level is also increased (Greenfield and Marks 2006; Milkie et al. 2008). Likewise, the role of a child is not abdicated when a person begins their own family; studies document the linked-lives concept by demonstrating the negative consequences associated with seeing one's father or mother in declining health or other problematic experiences (e.g., Willson, Shuey, and Elder 2003). Finally, despite changing social norms toward marriage, Americans continue to view spouses among their most significant others (McPherson, Smith-Lovin, and Cook 2001). Accordingly, experiences of trouble in the life of one's spouse reverberate in husbands' and wives' well-being and generate stress.

In all of the cases mentioned above—problems in the lives of children, parents, spouses—the stress induced by turmoil is expected to wear down psychosocial resources. Roles attached to family life are central for personal identities (Reitzes and Mutran 2002), and so the welfare and misfortune of family members impinge on people's well-being. This includes a broad set of factors in the experience of aging (e.g., health, mental health, the availability and receipt of caregiving, the transmission of emotional support; Bengtson and Silverstein 1993).

Besides turbulence within one's primary group, there are other types of interactions with the social world that may shift the moorings of age identity over a decade. The transitioning through age-graded social roles could be expected to change how people feel in relation to time. Prior research on middle- and older-age adults, however, is inconsistent on whether transitions such as widowhood and retirement produce older age identities (see Barak and Stern 1986; Logan et al. 1992; Westerhof et al. 2003). One problem is that the earliest studies cited above did not control for health status, but a further limitation is the reliance on cross-sectional study designs in which actual role transitions cannot be observed over time. The longitudinal studies in print have been primarily conducted on limited-age samples of late adolescent respondents and used only measurements of discrete, categorical age identities (Benson and Furstenberg 2007; Johnson et al. 2007). From these studies, it is apparent that transitions from school to the workforce and from unattached life to family responsibilities bring feelings of adult attainment. But more age-representative studies with controls for health status and continuous measures of felt age suggest that age identity is relatively impervious to role changes (e.g., Westerhof et al. 2003). For this reason, we do not expect role changes in general to produce marked changes in age identity over a decade.

A certain category of role transitions, however, may produce substantial changes in age identity, those being ones that are drastically off-time in family life. A recent article, for instance, found that death of a mother during childhood produced three extra years of age identity, on average—up to half a century later in the life course (Schafer 2009). Death of a parent during adulthood, however, did not have any effect. Based on these findings, we anticipate that extremely off-time and unexpected role transitions may produce older age identities. From a demographic standpoint, the clearest example of such a role transition in the current study would be the loss of a child (Hagestad 1988).

The immutable ending of any family relationship, however, can be deeply unsettling. And so to qualify our expectation above, we anticipate that if the loss of a spouse, sibling, or parent diminishes positive psychosocial resources, age identity will also be affected. The discontinuation of roles that are central for identity poses particular risks for well-being (Marcussen et al. 2004; Thoits 1991). Again, in light of their importance (Reitzes and Mutran 2002), the rupture of familial roles likely induces stress by diminishing positive affect and a sense of control (Chi and Chou 2001). Studies on widowhood, divorce, and parental and sibling death all attest to the damaging effects of these experiences—though psychological health is also quite capable of resilience (Bonanno 2004).

Finally, negative changes within a person's body over the course of a decade can be a harbinger of older age. The age-inducing effect of poor health is by far the most consistent finding of past quantitative research—in cross-national studies (Westerhof et al. 2003, Westerhof and Barrett 2005), across a wide variety of health measures (Barrett 2003), and in studies using categorical and continuous age identity outcome variables alike (Barak and Stern 1986). Qualitative studies, too, have demonstrated the centrality of health for the self-concept and the ways that people strive to maintain a vigorous, healthful, and ultimately youthful presentation of self (Charmaz 1991; Clarke 2001; Furman 1997). These projects demonstrate the ways that health is central to a sense of autonomy, purpose, and self-efficacy. The incidence of health problems, then, is expected to accelerate age identity over a decade. Some of this effect may result from health being a reminder that one is a finite mortal with a limited lifespan, but part of the effect of declining health may be due to its association with frustration and disillusionment. Indeed, declining health is instrumental in the stress process by engendering distress (Kelley-Moore and Ferraro 2005; Schieman and Plickert 2007). Therefore, health decline is expected to hasten age identity to the extent that it wears down psychosocial resources.

METHODS

The analyses for this study are based on data from the National Survey of Midlife Development in the United States (MIDUS). In 1995, random-digit-dialing was used to obtain a representative sample of English-speaking non-institutionalized adults aged 25 to 74 in the 48 contiguous states, with oversampling for males between 65 and 74. 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 x .87 = .61), producing a total sample of 3,034 participants who completed both the telephone and the mail portions of Wave I. Approximately 10 years later, a second wave of data was collected, using both phone and mail questionnaires. Of the complete Wave II sample, 2,103 individuals were followed up (69 percent), but not all tracked respondents returned the mail questionnaires in which age identity was asked. Our final sample thus consists of 1,668 respondents who completed both phone and mail surveys of Wave II and after we used multiple imputation for 323 subjects who had missing data on independent variables.[3] Findings were robust to alternate strategies of handling missing data. All analyses used weights to adjust for differential probabilities of selection and differential non-response with *Stata* 10.0.

Measures

Age identity. We operationalize the concept of age identity with a measure that traces the rate of participants' subjective aging. Specifically, the question asked respondents, "Many people feel younger or older than

[3] We did not impute missing data on the dependent variables (von Hippel 2007). We used Royston's (2004) approach to multiple imputation in Stata, creating 5 copies of the data, each of which has missing values imputed by different regression equations (depending on the property of the variable to be imputed), analyzing each dataset separately, and then generating a single estimate which is an average across the five datasets.

they actually are. What age do you feel most of the time?" Subjective aging was measured by subtracting subjective age at Wave I from subjective age at Wave II. This results in negative values reflecting younger subjective ages and positive values reflecting older subjective ages.

Mediating variables. Personal control (often called mastery in the stress literature) is a key resource in the stress model. Personal control was measured at both waves as a 12-item index (Prenda and Lachman 2001). 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 index items had a reliability of alpha = 0.85. The second psychosocial resource included was positive affect. Positive affect is a fitting variable to capture emotional well-being because it is a fairly stable trait, yet is responsive to life circumstances (Watson and Walker 1996). Positive affect was measured at both waves as a six-item scale (Mroczek and Kolarz 1998). Questions relate to whether respondents felt cheerful, in good spirits, extremely happy, calm and peaceful, etc. over the last 30 days. Each item ranged from 1 = strongly disagree to 5 = strongly agree with high values corresponding to high sense of positive affect. The index items had a reliability of 0.91 at each wave.

Family adversity. Since a key interest of this paper is to examine how negative events in one's network of intimate ties influence change in subjective age, our first main independent variable is a score for family adversity. This variable is intended to capture the *extent* of adversity experienced in people's intimate social worlds, or what Turner and Lloyd (1995) have called "the joint or cumulative effects of multiple traumas" (268). The MIDUS study included a series of items about problems faced by respondents' spouse(s)/partner(s), children, and/or parent(s). At both waves, respondents were asked whether, in the past twelve months, these significant others had experienced any of the following: chronic disease/disability; frequent minor illness; emotional problems; alcohol/substance use; financial problems; problems at school or work; difficulty finding or keeping a job; marital or partner relationship problem; legal problems; or difficulty getting along with people. We use baseline family adversity as a control, while incident family adversity between Wave I and Wave II is of primary interest. For Wave I family adversity, responses were summed, with scores ranging from 0 to 17. For incident family adversity, respondents were coded as experiencing an event(s) if their significant others had not faced an adversity at Wave I but had experienced it by Wave II. This approach allowed us to isolate the timing of the events to the 10-year span between waves rather than anytime in their lives prior. Responses were summed, producing a possible range from 0 to 31 (although the highest score was 29, it was reported by only one respondent, with the next highest score resting at 14). Because cumulative adversity scores often demonstrate non-linear effects in regression analysis, we use family adversity's square to avoid potential model misspecification (Pollard, Hawkins, and Arthur 1999; Schilling, Aseltine, and Gore 2008). Models presented herein include the quadratic term where statistically significant.

Family roles. A second interest for this study is change in family roles, which represent a key relation that an individual has to her social world. Besides enabling us to directly consider whether changes in these roles correspond with changes in age identity, including family roles also controls for the configuration of family relations that are pertinent for family adversity. We therefore include the composition of people's families at the beginning of the study as well as changes in the structure of families from Wave I to Wave II. Marital status at baseline was operationalized with four dummy variables, including currently married, widowed, divorced, and never married. Those who were married at Wave I comprised the omitted reference group in regression analyses. We further differentiated between those

respondents who, between waves, stayed married, got married, got divorced, got widowed, or never married, with remained married as a reference group. Respondents' status as a parent at baseline was also a dummy (1 has any biological children, 0 does not), and those who became parents between waves were also identified (1 became a parent, 0 did not).[4] We differentiated between respondents who had both parents alive during baseline, those who had one parent alive, and those who had neither parent alive. Variables for loss of one parent and loss of both parents between waves versus both parents being still alive were also generated to chart potential change in family roles. Finally, we included measures for other intimate loss, such as death of a child (1 has a child die between waves, 0 does not) and death of a sibling (1 has a sibling die between waves, 0 does not).[5]

Health decline. To account for effects of health decline, our third domain of age identity influence, we included variables for both serious and chronic illnesses at Wave I as well as incidents of serious and chronic illness between waves. Specifically, the count of serious illnesses included 7 conditions, including cancer (ever), diabetes, hypertension, heart trouble (ever), HIV/AIDS, neurological problems, and stroke, while the summary of chronic illnesses included 25 problematic conditions, including hay fever, back and skin problems, and migraine headaches. Except for cancer and heart problems, all conditions were asked in relation to the past 12 months. For incident serious and chronic illness, respondents received a score if they had not experienced a particular condition it at Wave I but had experienced it by Wave II. Responses were summed and range from 0 to 5 for incident serious illness and from 0 to 17 for incident chronic illness.

Control variables. The analyses controlled for a number of factors collected at Wave I and identified in the literature as related to age identity and to personal control and positive affect. Chronological age was included in all multivariate models, 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. Female and black were binary variables with 1 equal to the name of the variable. Males were the reference group for female, and self-identified white respondents were the reference group for black. Education was coded with three dummy variables: less than high school, high school/GED, and bachelor's degree and higher, with high school/GED as the reference group in regression analyses. Household income was measured by summing the participants' personal income with income from spouse and from anyone else living in the household. We also created change in household income between waves by subtracting household income at Wave II from household income at Wave II. Working was a dummy variable which measured whether the respondent was working for pay at Wave I (1 = working, 0 = not) while retired corresponds to those who became retired between Wave I and Wave II.

Adjustment for nonresponse. Using longitudinal data has key advantages, but introduces the problem of attrition. To ensure that our estimates were not biased by selective attrition between waves, we followed the Heckman (1979) method of correcting for nonresponse bias. First we estimated a probit model predicting likelihood of W2 response, using a variety of demographic and psychosocial variables related to survey response (e.g., age, report of past discriminatory behavior, smoking). Next we calculated a hazard

[4] We included controls for quality of relationship with spouse and children. The variables were not significant and the findings were not substantially altered. Therefore, we use a more parsimonious approach with fewer independent variables.

[5] Also, in supplementary analyses, we explored recent role transitions. Specifically, we differentiated between transitions that occurred two or fewer years ago versus those that happened three to ten years ago. Among recent transitions, only the death of both parents emerged as a significant predictor of age identity change. Thus, for parsimony, we did not include differentiation for recentness of role transitions in our final models, but these analyses are available upon request.

instrument (λ), based on the inverse Mills ratio of the function derived from the probit model. This score is considered the hazard of non-response and included as a control variable in regression estimates.

Analytic Approach

The purpose of this research was to examine how age identity changes as a result of potential stressors at three levels of social abstraction, and, as per the stress model (Ensel and Lin 1991), how these factors are mediated by diminishing psychosocial resources. Because of our attention to mediation, analyses were divided into three stages. The first step tested an initial hypothesis: that change in positive affect and change in personal control—two key psychosocial resources—would be negatively affected by adverse events in one's family, family roles, and health declines as part of a stress process. We therefore regressed change in positive affect on family adversity, family roles, health declines, along with other relevant covariates and adjusting for positive affect at Wave I. Similarly, we regressed change in personal control on family adversity, family roles, health declines, and other covariates along with baseline levels of personal control. Because our models assessed *change* over a decade, we utilized Wave II–Wave I difference scores in the covariates in order to control for changing social and health conditions between waves. Supplementary analyses also utilized a lagged regression approach, but the results were virtually identical (Allison 1990). We used least-squares regression because change in positive affect and change in personal control are normally distributed variables.

Second, we used ordinary least squares regression to analyze the process of age identity change using two models. The first model (Model A) examined whether family adversity, family roles, and health declines increased age identity. This model did not account for the stress process variables (i.e., change in psychosocial resources). The second equation (Model B) added change in positive affect and change in personal control, along with their baseline predictors, to examine whether diminishing psychosocial resources explain the association between potential stressors (family adversity, role changes, health declines) and age identity from Model A. To investigate this mediation effect, we used the test proposed by Baron and Kenny (1986). As above, we used covariate change scores to adjust for changing conditions over the course of the decade.

RESULTS

Descriptive statistics are presented in Table 1. On average, respondents reported feeling in their late thirties at Wave I, while the mean chronological age was 47 years old. As the mean for subjective aging shows, respondents reported feeling about 7 years older in 2005 than in 1995. The mean for positive affect was 20 at baseline, with a mean change score of 0.128 (indicating relatively small changes in positive affect between waves). The mean for personal control was 5.48 at baseline, while the mean for change was also relatively small (0.021). Overall, respondents reported three family adversities at baseline, with two new adversities emerging within their significant other networks between waves. At baseline, most respondents were married, the majority were parents, and over half had lost a parent at some point in the life course. Only 9 percent of the respondents got married between waves, about 6 percent became divorced, and 4 percent became widowed. Of respondents, 40 percent had both parents alive at Wave I, but close to 30 percent lost one or both parents between waves. Close to two percent of respondents experienced the death of a child between waves, and less than eight percent experienced the death of a sibling. Finally the number of health problems was relatively low on average (a mean of 0.4 serious conditions and two chronic conditions at baseline).

Table 2 presents analyses that tested whether adversity in individuals' family networks is associated with lowered positive affect and/or decreased sense of control

Table 1. Means and Standard Deviations of Variables, MIDUS

	Range	Mean	*SD*
Subjective Aging, WII−WI	−53–83	7.334	9.442
Subjective Age, WI	0–120	39.813	12.057
Psychosocial Resources			
Positive Affect, WI	6–30	20.316	4.284
Change in Positive Affect	−18–24	0.128	4.342
Personal Control, WI	2.125–7	5.483	0.913
Change in Personal Control	−5.8–3.82	0.021	1.602
Family Adversity			
Family Adversity, WI	0–17	3.004	3.075
Incident Family Adversity	0–29	2.059	2.334
Family Roles			
Marital Status[a]			
Got Married	0–1	0.081	
Separated/Divorced, WI	0–1	0.171	
Became Divorced	0–1	0.059	
Widowed, WI	0–1	0.048	
Became Widowed	0–1	0.040	
Never Married, WI	0–1	0.102	
Remained Never Married	0–1	0.073	
Parenthood			
Parent, WI	0–1	0.795	
Became a Parent	0–1	0.085	
Parental Death[b]			
One Parent Alive, WI	0–1	0.320	
No Parents Alive, WI	0–1	0.272	
One Parent Died	0–1	0.276	
Both Parents Died	0–1	0.029	
Other Intimate Loss			
Death of a Child	0–1	0.017	
Death of a Sibling	0–1	0.077	
Health Decline			
Serious Illness Count, WI	0–7	0.415	0.723
Incident Serious Illness	0–5	0.468	0.717
Chronic Illness Count, WI	0–17	2.183	2.305
Incident Chronic Illness	0–17	1.121	1.383
Individual Characteristics			
Age	24–74	47.284	12.443
Black		.049	
Female		.541	
Less than High School[c]		.066	
College[c]		.358	
Income			
Household Income, WI	500–300,000	57,994.8	48,429.8
Change in Income	−299,000–274,574	18,223.71	54,436.13
Work Status			
Working, WI	0–1	0.634	
Entered Retirement	0–1	0.115	
Observations	1668		

Note: All dichotomous variables are scored zero and one (0 = no or otherwise). Standard deviations for dichotomous variables are omitted.

[a]Comparison category is married at Wave I and remained married between waves.

[b]Comparison category is both parents alive at Wave I and both parents still alive at Wave II.

[c]Comparison category is high school.

Table 2. Ordinary Least Squares Regression of Change in Positive Affect and Change in Personal Control on Independent Variables in MIDUS

	Positive Affect, WII−WI		Personal Control, WII−WI	
	Coef.	*SE*	Coef.	*SE*
Family Adversity				
Family Adversity, WI	−0.051	0.039	0.008	0.009
Incident Family Adversity	−0.353***	0.077	−0.054**	0.017
Incident Family Adversity^2	0.009*	0.004	0.003**	0.001
Family Roles				
Marital Status[a]				
Got Married	0.926	0.586	0.376**	0.129
Separated/Divorced, WI	0.664	0.371	0.088	0.088
Became Divorced	0.224	0.573	−0.003	0.107
Widowed, WI	0.194	0.499	0.129	0.120
Became Widowed	−0.605	0.620	0.010	0.135
Never Married, WI	−0.033	0.704	−0.203	0.207
Remained Never Married	1.075	0.794	0.240	0.227
Parenthood				
Parent, WI	0.747	0.502	−0.035	0.099
Became a Parent	0.591	0.527	0.039	0.115
Parental Death[b]				
One Parent Alive, WI	0.250	0.335	0.039	0.068
No Parents Alive, WI	0.017	0.405	0.114	0.094
One Parent Died	0.134	0.298	0.009	0.069
Both Parents Died	0.067	0.528	−0.005	0.156
Other Intimate Loss				
Death of a Child	0.289	0.571	0.164	0.158
Death of a Sibling	0.271	0.383	0.063	0.098
Health Decline				
Serious Illness Count, WI	0.219	0.169	−0.059	0.042
Incident Serious Illness	−0.193	0.166	−0.011	0.036
Chronic Illness Count, WI	−0.086	0.055	−0.039**	0.013
Incident Chronic Illness	−0.474***	0.104	−0.113***	0.020
Individual Characteristics				
Age	0.007	0.077	0.030	0.018
Age^2	0.000	0.001	−0.000*	0.000
Black	0.479	0.611	0.038	0.152
Female	−0.230	0.306	−0.171*	0.066
Less than High School[c]	0.594	0.575	−0.009	0.120
College[c]	−0.529	0.313	0.045	0.071
Income				
Household Income, WI	0.000	0.000	0.000**	0.000
Change in Income	0.000	0.000	0.000	0.000
Work Status				
Working, WI	−0.146	0.273	0.128*	0.064
Entered Retirement	0.799*	0.343	0.166*	0.082
Positive Affect, WI	−0.601***	0.032		
Personal Control, WI			−1.336***	0.032
Non-Response	−3.014*	1.301	−0.349	0.270
Constant	14.299***	2.294	7.135***	0.498
R-squared	0.346		0.695	
df	34		34	
Observations	1668		1668	

[a]Comparison category is married at Wave I and remained married between waves.
[b]Comparison category is both parents alive at Wave I and both parents still alive at Wave II.
[c]Comparison category is high school.
*$p < .05$; **$p < .01$; ***$p < .001$.

(Hypothesis 1). Both incidents of family adversity and incidents of chronic illness significantly lowered positive affect over time. Specifically, each new instance of family adversity produced a 0.353-unit decrease in positive affect between waves, while each new chronic illness resulted in a 0.474-unit decrease.[6] We also found support for a nonlinear effect of incident family adversity on positive affect: The squared term was significant and positive, though relatively small (b = .009), indicating that at the very highest levels of family adversity, the effect on people's positive affect essentially leveled out. Entering retirement between waves increased positive affect. Similarly, having a lower level of positive affect at Wave I also led to an increase in positive affect between waves, which may reflect a common tendency to regress toward the mean in change-score regression analysis (Allison 1990). Nonresponse was also a significant predictor of positive affect, suggesting that respondents who participated in the second wave had higher scores on positive affect than those who did not participate. This verified the importance of adjusting for nonresponse, although the substantive findings were also robust to excluding it from the models.

Turning to change in personal control: Individuals who experienced hardship in their networks of significant others between waves exhibited decreasing personal control between waves (supporting Hypothesis 1). Similar to findings for positive affect, the squared term for incident family adversity was positively related to change in personal control. Also consistent with the results for positive affect, having a greater number of chronic conditions at Wave I was associated with a decrease in personal control over time, as was experiencing the onset of chronic conditions between waves. Those who were married between waves, those with higher household incomes at Wave I, those who worked at baseline, and those who entered retirement between waves experienced an increase in personal control, but women experienced a decrease. Although the linear term for chronological age was not a significant predictor of change in personal control, we found that the squared term for age was a significant negative predictor of personal control. Although age had no significant linear effect, its relationship with change in personal control was strongest among respondents in the middle of the age spectrum. Individuals with higher personal control at Wave I reported decreases in personal control, again indicating a tendency towards the mean.

Next, Table 3 demonstrates which factors may hasten changes in age identity. The table presents two nested models: Model A, with all covariates save the stress process variables; and Model B, with change in positive affect and change in personal control added as mediating variables. The findings in Model A support our expectation that greater adversity within one's intimate network is associated with a more rapid rate of age identity change. Adjusting for covariates, each additional incident family adversity incurred over a third of a year increase in subjective aging—that is, the rate of change in age identity—over ten years. The squared term for incident family adversity was significant and negative—suggesting that, at the highest levels of family adversity, the effects decelerated (b = −0.017). Turning to family roles, experiencing the death of a child was the only significant predictor of subjective aging, creating more than a five-unit acceleration in subjective aging from 1995 to 2005. Interestingly, we failed to find an effect of widowhood on rate of subjective aging. Both incidents of serious and chronic illnesses increased subjective aging. Among control

[6] In supplementary analyses, we developed an aggregated score of individual adversities. For conceptual reasons, however, we found it useful to disaggregate the summary score into separate types of adversity. This allowed us to distinguish between health problems which emerged over the decade (controlling for baseline levels of health) and potentially stressful role transitions such as the loss of parents, siblings, children, divorce, widowhood, etc. Additional forms of adversity, such as homelessness or imprisonment, had insufficient statistical power (and had no significant effects) due to an extremely low number of people reporting these problems; for parsimony, we did not include these forms of individual adversity in our final models.

Table 3. Ordinary Least Squares Regression of Subjective Aging WII−WI, with Base Model A and Model B Incorporating Stress Process Variables, MIDUS

	Model A		Model B	
	Coef.	*SE*	Coef.	*SE*
Family Adversity				
Family Adversity, WI	0.122	0.089	0.067	0.093
Incident Family Adversity	0.384*	0.158	0.175	0.156
Incident Family Adversity^2	−0.017*	0.008	−0.009	0.008
Family Roles				
Marital Status[a]				
Got Married	−1.268	1.190	−0.484	1.190
Separated/Divorced, WI	−0.451	1.051	−0.060	1.018
Became Divorced	0.222	1.336	0.177	1.368
Widowed, WI	1.355	1.303	1.965	1.314
Became Widowed	−1.475	1.337	−0.891	1.389
Never Married, WI	1.109	1.628	1.268	1.622
Remained Never Married	−1.923	1.694	−1.666	1.703
Parenthood				
Parent, WI	−0.053	1.030	0.330	0.954
Became a Parent	−1.538	1.352	−1.091	1.314
Parental Death[b]				
One Parent Alive, WI	0.212	0.699	0.321	0.687
No Parents Alive, WI	−0.224	0.881	−0.248	0.911
One Parent Died	−0.051	0.627	−0.031	0.617
Both Parents Died	0.942	1.277	1.448	1.251
Other Intimate Loss				
Death of a Child	5.108**	1.660	5.639**	1.843
Death of a Sibling	−0.613	1.004	−0.228	1.016
Health Decline				
Serious Illness Count, WI	0.671	0.404	0.662	0.405
Incident Serious Illness	1.165**	0.377	1.143**	0.380
Chronic Illness Count, WI	−0.131	0.122	−0.251*	0.124
Incident Chronic Illness	0.432*	0.190	0.185	0.191
Individual Characteristics				
Age	0.034	0.162	0.079	0.162
Age^2	0.004*	0.002	0.004*	0.002
Black	1.566	1.181	2.251	1.240
Female	0.450	0.682	0.101	0.667
Less than High School[c]	−0.035	1.245	−0.332	1.224
College[c]	−1.002	0.655	−1.405*	0.635
Income				
Household Income, WI	−0.000	0.000	0.000	0.000
Change in Income	−0.000	0.000	−0.000	0.000
Work Status				
Working, WI	−0.419	0.556	−0.439	0.556
Entered Retirement	1.036	0.753	1.585*	0.751
Psychosocial Resources				
Change in Positive Affect			−0.189***	0.043
Positive Affect, WI			−0.206**	0.073
Change in Personal Control			−0.699*	0.322
Personal Control, WI			−1.144*	0.485
Subjective Age, WI	−0.528***	0.040	−0.542***	0.041
Nonresponse	0.246	2.640	−1.602	2.520
Constant	15.608***	4.534	31.686***	5.460
R-squared	0.269	0.269	0.301	
df	34		38	
Observations	1668		1668	

[a]Comparison category is married at Wave I and remained married between waves.
[b]Comparison category is both parents alive at Wave I and both parents still alive at Wave II.
[c]Comparison category is high school.
*$p < .05$; **$p < .01$; ***$p < .001$

variables, the quadratic term for chronological age was a significant positive predictor of subjective aging, suggesting that rate of subjective aging increases very slightly at the high end of the age distribution. The linear age term, however, was not significant; prior cross-sectional research noted a growing discrepancy between felt age and actual age based on this variable (e.g., Westerhof et al. 2003). Individuals who felt older at Wave I tended to report feeling younger by Wave II, which, as noted, may represent a tendency to regress toward the mean.

Model B is designed to examine whether psychosocial resources are related to less-rapid subjective aging, and whether the wearing down of such resources mediates the relationship between significant variables in Model A and subjective aging. Having higher levels of positive affect and personal control at baseline, and increases in these measures between waves, negatively predicted subjective aging, meaning that these psychosocial resources were associated with a decrease in the rate of subjective aging over ten years. Change in these psychosocial resources also mediated the effect of family adversity, which not only decreased substantially when controlling for these resources (b declined from 0.384 to 0.175), but also became nonsignificant in predicting subjective aging. Furthermore, the wearing down of psychosocial resources explained the association of incident chronic conditions on subjective aging, cutting the coefficient size by more than half and rendering it nonsignificant. Interestingly, however, controlling for these stress-process variables did not remove the effect of incidents of serious conditions or the death of one's child between waves; both of these factors remained significant in Model B and chronic illness at Wave I became a significant negative predictor of subjective aging. This suppression effect suggests a decrease in psychosocial resources and change in chronic conditions between waves, so that more chronic conditions at the outset (*but not incident conditions developed between waves*) are associated with actually feeling younger between waves. Though not a focus of the analysis, similar suppression effects were observed for education and retirement when controlling for the stress-process variables. Only when the psychosocial resource variables were included did having a college education decrease subjective aging and entering retirement between waves increase subjective aging.

We employed the method proposed by Baron and Kenny (1986) to formally test whether positive affect and personal control mediated the family adversity/age identity relationship and the association between chronic conditions and age identity. Baron and Kenny described the estimation of three regression models: 1) the model in which the independent variable affects the mediator; 2) the model in which the independent variable affects the dependent variable; and 3) the model in which the mediator is a significant predictor of the dependent variable, controlling for the independent variable. All three conditions were true for this analysis and the effect of incidents of family adversity and incidents of chronic illnesses decreased in the equation with the mediator variables.

In addition, we used Sobel's (1982) test for mediation, as also recommended by Baron and Kenny. This test uses the following formula:

$$z\text{-}value = a * b / \mathrm{SQRT}(b^2 * s_a^2 + a^2 * s_b^2 + s_a^2 * s_b^2) \quad (1)$$

where a = raw (unstandardized) regression coefficient for the association between IV and mediator; s_a = standard error of a; b = raw coefficient for the association between the mediator and the DV (when the IV is also a predictor of the DV), and s_b = standard error of b.

The test indicates that both mediation effects were significantly different from 0; thus, taken with other analyses, change in positive affect and personal control (and their levels at Wave I) fully mediated the relationship between incident family adversity and change in age identity. The test also confirms that the relationship between incidents of chronic conditions and age identity is fully mediated by change in positive affect and personal control.

DISCUSSION

The overarching aim of this paper was to examine whether the rate at which people's age identity changes is related to disquiet at three different levels of abstraction: turbulence within the lives of family relations (most removed level), role positions and role change (intermediate level), and problems within the body (most micro level). In doing so, we hoped to draw connections between age identity and the stress process—two interrelated concepts with applicability for life-course sociology (George 1996; Pearlin and Skaff 1996).

Regarding the empirical findings, some of our major expectations were supported. Increased levels of turbulence within intimate social networks (i.e., spouses, parents, children) create a lessened sense of control over life circumstances and a decrease in positive affect. Accompanying this wearing down of psychosocial resources, people with much disquiet within their family networks sensed greater increases in their age at the end of ten years. This can be seen as further evidence that uncertainty and trouble in one's social world produce a "graying" effect (Foster et al. 2008), counteracting the general tendency to try to maintain a youthful identity (Barrett 2003; Logan et al. 1992; Westerhof et al. 2003). Within a social stress model framework, we anticipated that decreases in psychosocial resources would explain why trouble within primary social groups should affect age identity; indeed, diminished positive affect and reduced sense of control were associated with greater changes in age identity over time, and these two key resources fully mediated the effect of family adversity on changing age identity in tests of regression mediation.

Of the changes in family roles, however, only loss of a child was associated with faster changes in age identity. By itself, this finding is somewhat consonant with a recent study that examined another off-time role transition—losing a parent during childhood (Schafer 2009). In a cross-sectional analysis, results indicated that losing a mother during one's early years increased age identity by over three years among adults. Parental loss during adulthood, when such a transition is more customary, did not influence age identity. In the current study, it is interesting to note that the off-time transition produced upward shifts in age identity apart from the wearing down of psychosocial resources. Severely off-time transitions, it seems, directly disjoint a "typical" sense of age and aging.

At the same time, the finding that other role changes in the family did not influence either the stress-process variables or age identity change may seem somewhat surprising. Experiencing a divorce or widowhood, for instance, could be expected to wear down psychosocial resources. Prior research, however, suggests that people demonstrate resilience to these changing life circumstances and adapt to their changing roles rather rapidly. The concept of resilience is often underestimated because many studies of grief and bereavement focus on the immediate aftermath of a loss; long-run well-being is remarkably imperturbable (Bonanno 2004). To address this issue of recent versus distal events, we attempted to incorporate information about the recent occurrence of role transitions. Due to the rarity of many of these events, however, we were unable to derive optimal conclusions about them in statistical models. Some surveys, such as the Changing Lives of Older Couples, are specifically targeted to study role transitions (e.g., widowhood) with prompt follow-ups after seminal events (Bonanno et al. 2002). That sort of study design would be preferable for isolating the effects of role changes on stress and age identity change. Unfortunately, the survey's ten-year gap means that many transitions were no longer "recent" by the time participants were re-interviewed. Limitations of the survey design aside, the fact that people demonstrate resilience begs the question of whether age identity change decelerates or even reverses direction once things settle down, and so buoyancy under stressful conditions and fluctuations in age identity are intriguing avenues for further research. Also important for future study is how *positive*

changes within families can countervail stressful conditions and protect well-being; our study focused on a "dark side" of family relations (Felmlee and Sprecher 2000), but these close relations are also a source of tremendous comfort and social support.

Health has been the central focus of many prior studies of age identity (Barrett 2003; Clarke 2001; Logan et al. 1992), and so we also explored the effects of negative changes within the body and their relation to stress and age identity. The finding that the stress process variables explained the effect of incidents of chronic conditions on age identity change lends support to our expectations, and it helps build the case for a generalizeable perspective on stress and aging. Not only does turmoil in one's family produce stress and thereby shape age identity, but health problems, too, influence a person's changing sense of age identity via the stress process. Of course, further research is needed to clarify these connections between health, stress, and age identity. For instance, the incidence of serious and life-threatening medical conditions (e.g., cancer, heart problems) influenced age identity change, but not through declining psychosocial resources as was the case with less serious chronic conditions. Why should this be? Perhaps serious conditions are a direct reminder of one's finitude and pending mortality apart from stress, whereas less dangerous conditions primarily create frustration and pressure (Sidell 1997). This deeper exploration of health changes, however, is the topic for a next study.

In terms of the broader substantive and theoretical implications of our findings on age identity, we believe that the relationships we demonstrated inform some of the current developments in life-course sociology. First, although sociologists are almost always referring to the passage of years since one's birth when they speak of age, there are multiple ways to conceptualize how individuals stand in relation to time. Subjective evaluations of age influence well-being (Westerhof and Barrett 2005), shape investment of socioemotional resources, influence motivation (Carstensen 2006), and even affect physical health (Demakakos, Gjonca, and Nazroo 2007), making age identity an essential corollary to more objective temporal coordinates. Second, theoretical treatment of time-based experience often concentrates on discrete, isolated situations without reference to the long-term, durable aspects of the self—identities which are cultivated over the life course and reflect meaningful biographical details (Schafer 2009). This is reflected by the limited attention to dynamic longitudinal change in age identity and the nearly exclusive reliance on cross-sectional measures for studying age identity (Barrett 2003; Johnson et al. 2007; Westerhof and Barrett 2005).

Important as it is to incorporate longitudinal change in age identity, it is equally essential to invoke the theoretical vigor of social psychological concepts in explaining these life course changes. As George (1996) has argued, there is great merit in cross-fertilizing such principles: "social-psychological processes and outcomes are strategic sites for testing some central propositions of life-course perspectives" (248–49). Accordingly, we sought to explain changes in age identity by drawing from a sociological model of the stress process (Thoits 1991; Pearlin 1989; Ensel and Lin 1991). In taking up the notion that stress causes people to "age" at different rates, we sought basic insights from like-minded colleagues across disparate fields of life science (e.g., Damjanovic et al. 2006; Epel et al. 2004; Simon et al. 2006). Ceding all such inquiry to biologists, however, would be inappropriate. Indeed, other social scientists have recently explored the stress-aging connection among adolescents (Foster et al. 2008; Johnson and Mollborn 2009), but our study specifically demonstrated that it is the diminution of psychosocial resources which accounts for the inability to maintain youthful identity in adulthood. This is the most central empirical contribution of the current study. By affirming the *deteriorative* nature of socially embedded stressors, the findings suggest that the sociological stress process model predicts the same pattern of findings that biological theories of stress and aging would anticipate. More specific to sociological stress

process theory, in wearing down the resources that maintain robust youthfulness, stress demonstrates its ability to imperil another aspect of well-being alongside the more commonly studied aspects of emotional health (e.g., Ensel and Lin 1991; Lin and Ensel 1989).

Complementing the psychosocial emphasis of a stress-process model, attention to durable relational ties is important because it underscores the structured nature of the life course (Elder 1994). People are enmeshed in networks of durable relationships which extend through the life course and consist of significant others undergoing parallel developmental trajectories (Elder 1994). Our findings reinforce the proposition that family ties are a key structural reality in social life. In some sense, these relations define the course of age identity from one point to ten years in the future. Just as time's passage in a discrete instance is modified by contextual stimuli rooted in the immediate environment (Flaherty 1999, 2002), the aspects of personal identity tied to a temporal referent are affected by the nature of durable life-course structures.

Although we believe the present study contributes to a better understanding of the relationship between age identity and key social psychological constructs, there are a few final limitations that should be acknowledged. First, although using the MIDUS data allowed us to prospectively examine changes in age identity over 10 years, it suffers from problems with follow-up (69 percent retention rate at W2). To account for possible attrition bias, we included a hazard instrument of nonresponse in all our analyses. Still, it would clearly be preferable to have retained more of the participants between waves.

Second, while our measure of cumulative adversity within the lives of family members privileges the role of intimate social ties for well-being and identity, it is certainly not the only way to conceptualize that people's life chances are enmeshed with the developmental trajectories of significant others. Going a bit further, our method overlooks many of the significant relationships people maintain, thereby leaving us unable to speak to the full effects of disquiet within their networks. For instance, our measure did not account for sibling or friend networks. On a somewhat related note, additional adversity may have occurred through the course of people's own lives that we cannot account for in our models.[7]

In addition, our measure of family adversity focused on the "cumulative effects of multiple traumas" across several relationships (spouse, parent, child) in people's social worlds (Turner and Lloyd 1995:268). We did not attempt to isolate particular adverse experiences to determine, for instance, whether a child's job loss was similar to a parent's substance abuse in the degree of duress invoked. A cumulative burden score captures the *extent* of turmoil a person confronts in their family network (e.g., facing a count of 6 is an incontrovertibly grimmer reality than dealing with a single adversity); an alternate way of pursuing our research inquiry would be to favor *type* of hardships over cumulative magnitude.

Finally, in this article we have only pursued change in age identity, a single dimension of time-based experience. From here, we can develop additional ways of talking about change, duration, and temporal consciousness. Other sociologists have started this discussion, but much of their interest has lied in the existential moment (Denzin 1987; Flaherty 1999, 2002). We propose that time-based experience poses interesting riddles for social psychology which transcend discrete and bounded contexts. Indeed, something as internalized and multifaceted as one's age identity hastens, in part, due to stressful conditions as personal as health problems, but also as diffuse and extended as problems in the lives of significant others.

[7] Due to the nature of the data, we were not able to account for additional adversity that occurred in people's lives outside of the time-frame of the questions asked (e.g., preceding the past 12 months).

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