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Children of Misfortune: Early Adversity and Cumulative Inequality in Perceived Life Trajectories1

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Abstract

Adversity early in life may alter pathways of aging, but what interpretive processes can soften the blow of early insults? Drawing from cumulative inequality theory, the authors analyze trajectories of life evaluations and then consider whether early adversity offsets favorable expectations for the future. Results reveal that early adversity contributes to more negative views of the past but rising expectations for the future. Early adversity also has enduring effects on life evaluations, offsetting the influence of buoyant expectations. The findings draw attention to the limits of human agency under the constraints of early adversity—a process described as *biographical structuration*.

Sociological and epidemiologic research on the life course has provided breakthrough insights into the long-term consequences of early adversity on adult status, health, and well-being. A bad start in life, perhaps due to low birth weight (Conley and Bennett 2000; Barker 2003), an inauspicious label (Sampson and Laub 1997), or socioeconomic strain (Hayward and Gorman 2004), can have enduring consequences on life chances. Early life course events and experiences are the seedbed for lifelong human development, and life course scholars are bringing fresh insights into how negative conditions during childhood and adolescence compromise adult well-being (Turner and Lloyd 1995; Conley and Bennett 2000; Dube et al. 2001; Singh-Manoux and Marmot 2005).

Missing from most of this research, however, is explicit attention to how people interpret the course of their lives in light of the adversity they have experienced. Most previous studies on the topic identify the negative early-life exposures and seek to link these to outcomes during adulthood and later life. This genre of research is exemplary to aid our understanding of the life course, and the priority on structural disadvantage is well placed. At the same time, human agency plays an important role in how people interpret and respond to early adversity. Some people face major disadvantages but fare rather well by mobilizing resources, choosing wisely, and/or expending extraordinary effort (Thoits 2006). This is not to diminish the influence of structural disadvantage but to recognize the important role that human agency plays in facing adversity. As several recent papers demonstrate, how people interpret their experience of adverse events is critical for either the maintenance of well-being or optimization of life chances (Surtees and Wainwright 2007; Reynolds and Turner 2008).

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From an interactionist point of view, people actively interpret and define lines of action (Goffman 1959; Blumer 1969), and reflective processes provide intrinsic motivations for behavior (Gecas and Burke 1995). Few studies, however, have examined how people fit together lines of actions over the life course to understand the ebb and flow of life sequences. To that end, this article systematically examines how adversity during childhood affects the way in which adults understand their past, present, and future—whether things are getting better, growing worse, or staying the same. We examine a straightforward measure, general life evaluations, investigating how temporal appraisals are related to actualized futures and whether early adversity has long-term consequences on life evaluations.

As beings that often construe events in narrative form, humans interpret life in a way in which circumstances in the past, present, and future constitute an understandable and unified story (Mead 1932; Callero 2003). These cognitive schemas are of interest to social psychologists interested in mental health (Keyes and Ryff 2000) but also to sociologists who argue that perceived life trajectories are closely linked to the process of cumulative inequality (Ferraro, Shippee, and Schafer 2009). Individuals' interpretations of their lives are rooted in structural systems of advantage and disadvantage, but the interpretations also shape the future through goals, expectations, and/or self-fulfilling prophecies (Merton 1995). Though beliefs about the modifiability of life trajectories are an essential element of human agency, the tenability of these optimistic beliefs has received little systematic attention. Do people's forecasts generally envisage a brighter tomorrow? And do their evaluations of the past and expectations for the future actually influence how things turn out?

These questions also fall within the purview of broader sociological discussion about the dialectic of agency and structure. Recent attention to agency emphasizes how situational and reflexive aspects of the self proceed through time and shape life trajectories, underscoring the importance of optimism for the attainment of agentic goals (Hitlin and Elder 2007a, 2007b). The wealth of theorizing, while thoughtful and stimulating, has yet to eventuate in much empirical research on how agency and structure are related to processes of cumulative inequality. Much of this owes to the abstract nature of agency and the difficulty in empirically assessing its influence on individuals' lives. As Hitlin and Elder note, agency remains a "slippery" concept because "theory and research have largely occurred in isolation" (2007*b*, p. 185).

Though social scientists often veer away from the deterministic positions that characterize some biological theories of human development, perspectives on the long-term effects of early disadvantage vary in their emphasis on the irreversibility of early adversity—scarring effects versus opportunities for resilience.[2] We argue for some of each. Early disadvantage (relative deprivation, family dissolution, exposure to abuse, poor health) is not likely irreparable, and the optimism embodied in human agency can stave off resignation and fatalism in the face of early adversity; yet early disadvantage likely limits the ability to actually rebound, despite an optimistic stance toward the future. In developing our argument and through empirical evidence from the Midlife Development in the United States (MIDUS) study, we advance the theory of cumulative inequality, drawing fresh attention to the dialectic of structure and agency over the life course.

To develop the research questions for contributions to the sociology of the life course, we discuss four topics in this introductory section. First, we briefly describe the origins of cumulative inequality theory and its utility for research on a variety of issues related to well-

[2]The Barker (2003) hypothesis, as it is commonly known, posits that initial insults to the human organism as early as gestation manifest in lifelong physiological dysregulation and increased risk of health problems.

being. Second, we summarize the burgeoning literature on the early origins of adult well-being and how it is influencing theory and empirical research. Third, moving beyond solely structural determinants of life course inequality, we isolate the critical role of perceived life trajectories, and fourth, we articulate how human agency is integral to studying the long-term consequences of adversity on well-being.

CUMULATIVE INEQUALITY THEORY: AN INTEGRATIVE PERSPECTIVE ON THE LIFE COURSE

One of the most important themes in life course research has been sociogenesis of inequality, including the dynamics of intracohort differentiation (Dannefer 2003; Elman and O'Rand 2004; Willson, Shuey, and Elder 2007). The framework commonly known as cumulative advantage/disadvantage (CAD) holds that statuses and events from early points in the life course pave the road to an individual's future, creating a divergence between individuals that expands over the course of time (Dannefer 1987, 2003; O'Rand 1996). As others have noted, many types of disadvantage proliferate across domains, setting into motion a cascading effect by which "one condition [is] overtaken by the next in a serial unfolding of hardships" (Hatch 2005, p. 131). The broad body of literature encompassing these processes is known alternately as cumulative advantage (DiPrete and Eirich 2006; Willson et al. 2007), cumulative disadvantage (Dupre 2007), or a combination of the two (Dannefer 2003). Building on these illuminating works, we integrate and expand on elements from other theories with *cumulative inequality theory* (CIT).

CIT builds upon CAD and other theories to explicate the mechanisms by which inequality develops between persons over the life course (Ferraro et al. 2009). The theory maintains that "social systems generate inequality, which is manifested over the life course via demographic and developmental processes, and that personal trajectories are shaped by the accumulation of risk, available resources, perceived trajectories, and human agency" (Ferraro and Shippee 2009, p. 333). Emphasis is thus placed on integrating both systemic and agentic processes, not only the "social system processes acting on populations or other collectivities" (Douthit and Dannefer 2007, p. 224). CIT is formulated axiomatically as a middle-range theory that integrates other theories in a synthetic way; it is, in Merton's (1968*b*, p. 68) words, "consonant with a variety of sociological systems of thought" and "consolidated into wider networks of theory."[3]

As mentioned below, CAD theory and empirical tests of it have made incisive contributions to life course research.[4] Missing from the literature, however, is systematic discussion of how people interpret their lives. One of the key elements not discussed in CAD but formally specified in CIT is of particular importance for the current inquiry: *the perception of life trajectories influences subsequent trajectories*. Actors are not only dealt advantage or disadvantage in social systems but respond to such stimuli as active agents (Ferraro et al. 2009). Actors interpret life experiences— and the accumulation of such experiences—in order to map out courses of action. Using CIT, therefore, enables us to privilege the structure/agency dialectic, recognizing that actors are continuously interpreting their life

[3]In addition to CAD, CIT integrates elements from age stratification (Riley 1987), life course (Elder 1998), stress process (Pearlin 1989; Pearlin et al. 2005), and symbolic interactionism (Blumer 1969). Other scholars have drawn from CAD theory to develop new theories. For instance, Sampson and Laub (1997, 2005) developed a theoretical framework on "age-graded informal social control" that draws from several theories—life course, cumulative disadvantage, labeling, developmental criminology, and social control—and uses the concept of situated choice to explicate how the structure/agency dialectic influences criminal activity. For a systematic development of CIT's five axioms and 19 propositions, see Ferraro et al. (2009).

[4]As an exemplar of empirical tests, O'Rand and Hamil-Luker (2005) demonstrate that some aspects of early disadvantage can have long-term effects on the risk of heart attack during adulthood. Ferraro and Kelley-Moore (2003) also found health consequences due to long-term risks (obesity) but identified how compensatory mechanisms may offset some of the deleterious effects of earlier risks.

situations and aligning actions in light of such interpretations. Before we move to a fuller discussion of perceived trajectories and agency, however, it is important to recognize how the study of early origins is influencing both theories and empirical research on the life course.

The Importance of Early Origins on Cumulative Inequality

One of the chief contributions from studies using CAD and life course theories has been to demonstrate long-term consequences of early status inequality, especially those associated with educational differences. Just as financiers understand that compound interest increases principal investment at differential rates of return, so do life course scholars articulate that one's initial allowance of capital—social, economic, physical reserve, or other—should set the stage for divergent life trajectories (Elman and O'Rand 2004). Indeed, Merton (1968*a*) referred to this as the Matthew effect because he observed the long-term benefits of early scientific achievement, not only for the acclaim attendant with an important discovery but also because the initial favor boosted the value of subsequent scientific contributions.

Though it may seem rather intuitive that those with resources can parlay their advantage into further advantage, there may be other mechanisms (outside of the individuals themselves) that can help explain why early periods of the life course are important for cumulative inequality. Childhood, for example, is the life course period of crucial socialization processes, including the development of self-esteem, role-modeling of vocational and marital behavior, and the internalization of values and norms (McLeod and Almazan 2003). Especially early on, each of these influences is centered around the family institution (Cooksey, Menaghan, and Mekielek 1997), and so it is for good reason that there has been considerable attention given to studying the consequences of childhood home factors.[5]

With so much at stake during childhood—from development of the self to the introduction to key social institutions—it is perhaps with little surprise that social scientists of disparate disciplinary backgrounds converge at the conclusion that early life course conditions matter deeply for life chances. Considering educational attainment and adult earnings as one consequence, growing up poor does not predestine one for a life of penury, but household income during the initial five years of life is strikingly related to years of schooling completed, particularly among those growing up in poorer households (Duncan et al. 1998). Poverty during childhood is similarly associated with reduced likelihood of employment and economic productivity (e.g., annual earnings, wage rates) as an adult (Haveman and Wolfe 1995; Wagmiller et al. 2006). Conflict in the family and parental absence (e.g., through divorce) likewise have a dampening effect on status attainment (Caspi et al. 1998) in addition to the well-documented negative consequences for long-term emotional well-being (Amato, Loomis, and Booth 1995; Cherlin, Chase-Landsdale, and McRae 1998). Low socioeconomic status and parental absence likewise alter the life course by downwardly extending adulthood; these factors increase the likelihood of adopting adult identities in adolescence (Johnson and Mollborn 2009) and provide a rationale for early parenthood—a role in which accomplishment is seen as attainable by those who stand little chance of flourishing in labor market hierarchies (Edin and Kefalas 2005). These premature transitions, in turn, are associated with less stable adult family relations and compromise human capital attainment (Amato et al. 2008).

The fields of social epidemiology, criminology, and demography, too, have painted a compelling portrait of the importance of the early life course. Economic hardship as

[5]Childhood health status is influenced by factors such as exposure to environmental toxins (Holland et al. 2000), which are clearly dependent on residential context and family circumstances.

measured by father's low-level occupation has been linked to increased risk of mortality from stroke and stomach cancer (Smith et al. 1998). Other dimensions of social class, such as father's education level and childhood housing conditions, are also related to mortality risk (Elo and Preston 1992; Kuh et al. 2002). Family disruption, such as divorce of parents, is likewise associated with increased risk of adult mortality (Schwartz et al. 1995). Health outcomes—both physical and mental—are similarly affected by abuse and mistreatment during childhood (Horwitz et al. 2001; Irving and Ferraro 2006).[6] Beyond health, however, childhood maltreatment has consequences for early adult transitions (Foster, Hagan, and Brooks-Gunn 2008) and likelihood of criminal record and arrests as an adult (Widom 1989).

Though many studies have focused on how a particular adversity may affect adult life chances, a number of studies have considered the "*joint or cumulative effects of multiple traumas*" (Turner and Lloyd 1995, p. 268; Turner, Wheaton, and Lloyd 1995). A series of studies by Felitti and colleagues (1998) examined the long-term effects of multiple traumas. Using data from managed care enrollees, the researchers found that childhood adversities (ranging from parental divorce to sexual abuse) are consequential in their effects on adult well-being decades later. They also showed that a count of adverse childhood experiences—what they termed an ACE score—predicted a host of adult problems, such as attempted suicide (Dube et al. 2001), alcohol abuse (Dube et al. 2002), depressed affect (Dube et al. 2003), and decreased health status (Felitti et al. 1998). Other studies taking the cumulative burden approach report a relationship between multiple childhood adversities and physical and mental health (Turner and Lloyd 1995; Surtees and Wainwright 2007). Adversities, when considered in additive form, signify how their accumulation limits life chances.[7]

Of course, the simple accumulation of adversity is not the only way to conceptualize early disadvantage. Challenges during childhood related to family structure, abuse and trauma, and relative deprivation, for instance, may have distinct long-term effects because they impede the development of different forms of life course capital, such as human, social, and health capital (O'Rand 2006; Hamil-Luker and O'Rand 2007). Indeed, distinguishing between these forms of life course capital proved quite useful in several studies of heart attack risk between the ages of 51 and 71 (O'Rand and Hamil-Luker 2005; Hamil-Luker and O'Rand 2007). As others have noted, however, childhood adversities tend to cluster within homes, and "attempts to disaggregate the effects of clustered adversities may offer relatively little insight into processes of risk and resilience" (McLeod and Almazan 2003, p. 401).

With these competing considerations in mind, it seems reasonable to examine potential domains of adversity and compare the predictive validity of domain-specific and overall-accumulation models on outcomes. In addition, although most studies use an overall count of adversities (e.g., Surtees and Wainwright 2007), another consideration is whether a simple count adequately captures what is meant by accumulation. Simple counts presume that each unit difference is equivalent, but there may be thresholds of when people feel especially challenged. Most people will have at least one childhood adversity, but facing a second or third adversity may lead to a greater sense of affliction. And for persons with a

[6]Health problems are not only a consequence of childhood adversity but also a form of adversity with a damning effect on life chances by its effects on labor market outcomes (Case, Fertig, and Paxson 2005; Palloni 2006).

[7]A number of explanations are proffered for how insults experienced during childhood specifically influence adult conditions. Preston, Hill, and Drevenstedt (1998) provided a generic model by which to examine the reported associations, arguing that the effects of early adversity can be either direct or indirect (i.e., mediational). We see the potential that several of these effects can be at work simultaneously. Early-life disadvantage, for example, can have multiple consequences by affecting socialization processes and subsequently increasing susceptibility to risky behaviors, compromising psychological vulnerability, impairing the development of social skills, and altering future time perspective (Singh-Manoux and Marmot 2005). Early disadvantage can also have indirect, negative influences by setting into motion further forms of disadvantage that cannot be surmounted. Direct and indirect negative effects, however, are not clearly distinguishable, and the relative importance of either likely depends on the particular adult outcome in question.

high number of adversities, perhaps eight or nine, does a unit difference have equivalent consequences on well-being? The term accumulation is now widely used in the social sciences, but we contend that greater attention should be given to identifying thresholds and functional forms of adversities that may influence the life course. In identifying such thresholds, moreover, one needs to consider how the actor evaluates the accumulation of adversity.

Perceptions of Trajectories: Bringing Narrative Selves into View

Although theories of cumulative inequality have grown increasingly sophisticated and incorporated important insights about the early origins of adult conditions, little attention has been given to how perceptions of one's trajectory may contribute to processes of cumulative inequality. This is a notable limitation. When appraising their lives, people become aware of their position within various status hierarchies and develop expectations for their futures that ultimately shape the form of subsequent life trajectories (Ferraro et al. 2009). For instance, a favorable view of one's past is an important factor for inculcating confidence about the future, perhaps helping the person overcome challenges (Pearlin et al. 2007). By incorporating perceived trajectories in a theory of cumulative inequality, we identify the reflective self as an important influence on social inequality.

One of the human attributes that has long captivated philosophers is the extension of the self, the unique ability to transcend temporal boundaries and locate the self in the past, present, and future (Heidegger 1962). Social psychological research sheds interesting light on this phenomenon, finding that individuals use multiple temporal referents to envision "possible selves" (Markus and Nurius 1986) and to engage in comparisons with others (Wilson and Ross 2000). Mead's (1932) theory of time places reality itself in the present but acknowledges that the past is reconstituted in various ways as to maintain continuity in the passage of time (Maines, Sugrue, and Katovich 1983). Similarly, according to Maines et al., the future exists not as an ontological reality, but as an anticipated, hypothetical springboard from the "specious present." Thus, diachronic thinking, rooted in the present, yields two main anchor point evaluations: *reflective* and *prospective*. Reflective life evaluation pertains to interpretations of one's past and current reality, whereas prospective life evaluation envisions a future state of affairs. In other words, *the key distinction is between lived experience* (reflective) *and that period of life that the mind foresees* (prospective).[8]

What accounts for a diachronic self? The principal view among many scholars is that people universally construe, tell, and revise life stories, making sense of their world through narratives that have a beginning point and progress to some form of resolution (McAdams 2001). The elements of a story—plot, settings, characters, scenes, themes—are widely familiar and are useful schemas for interpreting and making sense of the social world. Indeed, this may be one of the most important tasks that individuals undertake. As Giddens (1991, p. 54) notes, "a person's identity is not to be found in behavior, nor—importantly though this is—in the reactions of others, but in the *capacity to keep a particular narrative going*" (emphasis added). The narration that individuals construct is hardly an "objective" tale in any sense of that description.[9]

[8]Both elements of the narrative are in keeping with the elements of agency delineated by Emirbayer and Mische (1998). The authors contend that the iterational aspect of agency represents the "selective reactivation by actors of past patterns of thought and action" and that the projectivity aspect "encompasses the imaginative generation by actors of possible future trajectories of action, in response to the emerging demands, dilemmas, and ambiguities of presently evolving situations" (p. 971).

[9]Indeed, it is symbolic interaction, "a formation made by human actors" (Blumer 1969, p. 74). Postmodern accounts of the self's narrative nature impel this line of thinking, stressing the incoherent and relative elements of storytelling and questioning whether the language used to communicate life stories can even be understood (McAdams 2001).

Narrative form likely differs across the life course—contingent on current social roles within status hierarchies—but the primacy of early inequality for directing the tone and form of the story is a more fundamental question. Because narrative efforts typically stress self-improvement and growth, it is reasonable to expect that people with an inauspicious life start (e.g., through material deprivation, abuse, family strain) will evaluate their life trajectory with a lower intercept but increasing more rapidly with time than people who have had to surmount fewer early impediments. Narrative processes are relevant for cumulative inequality theory because interpretation and evaluation relate to a fundamental issue that has been given little attention in the literature on cumulative disadvantage: the dialectic of agency and structure in the life course. As others have shown, objective trajectories of inequality (health, earnings) are important (Elman and O'Rand 2004; Willson et al. 2007), but self-perceived trajectories—encased in social structure yet formed by a living actor—matter as well.

The Relation of Agency to Life Trajectories and Cumulative Inequality

Human agency has many expressions, but a perceived trajectory is one way for actors to characterize their lot in life. Taken together, reflective and prospective life evaluations are elements of agency because they involve both a summary judgment of how the actor has fared to date and a projection of how the actor envisions his or her future. Our research addresses an empirical question that is encased in the theoretical issue of how people interpret and form lines of action (Goffman 1959; Blumer 1969).

Agency is defined by Hitlin and Elder (2007*a*) as "an individual capacity for meaningful and sustained action, both within situations and across the life course" (p. 39). Agency is inherently a time-bound process, with people acting in terms of current and situational goals, but also in order to arrive at planned courses of action in the future. Cumulative inequality theory privileges the structure/agency dialectic by recognizing how the actor perceives his or her life trajectory, whether overcoming adversity or maintaining a favored status. The difficulty often comes, however, when one tries to pin down the concept of agency. In this analysis, agency is assumed to be a human trait that cannot be proven per se but that is demonstrated most clearly by identifying its limits—consistent with Hitlin and Elder's (2007*b*) concept of *existential agency*. Structures impinge on agency, suggesting that our chief task is to explain the forces that may restrict agency. Specifically, agency is circumscribed to the extent that people's wishes, goals, or expectations are thwarted.

This article focuses on general expectations that people have about their lives, which, although invoking future-time horizons, differs appreciably from studies that tap concrete goals in the life course, such as educational attainment (e.g., Shanahan, Elder, and Miech 1997; Dinovitzer, Hagan, and Parker 2003). In one such study, competent youths were found to demonstrate high levels of career and marital success nearly half a century past their adolescence because they made wise choices and followed through on premeditated goals (Clausen 1991). These types of "planful competence" clearly reflect an important aspect of agency, but what of more general processes, such as overall evaluations of life and expected evaluations in the future? People do not consciously plan for a sense of life evaluation, and the very reason that there are not clear ways to "achieve" such evaluations makes subjective correlates of biographical flow an important issue to study. Whereas people can take steps to fulfill educational requirements or gain experience for a better job, general life evaluations provide a context to examine how countervailing forces can restrict expectations in more subtle ways.

A unifying theme between the above accounts of agency and the current article is the focus on agency's temporal nature. In this way, *optimism* is one of agency's most important components because it implies that action can be taken that will influence the future. Hitlin

and Elder (2007*a*), for instance, argue that when social psychological constructs such as self-efficacy are put in their proper temporal context—reflecting agentic life course processes that people undertake (Hitlin and Elder 2007*b*)—the resultant construct is optimism. Indeed, optimism offers an "empirically measurable, but [mostly] unexamined aspect of agency" (Hitlin and Elder 2007*a*, p. 44). Temporally, optimism relates to a future orientation; yet the past cannot be dismissed as a trivial constituent of future events. Mead (1932) emphasized that the past "is exhibited in memory, and in the historical apparatus that extends memory" (p. 17). In this way, the past "becomes a stabilizing influence that shapes the flow of effort and allows us to sustain identities, meanings, and interactions over time" (Emirbayer and Mische 1998, p. 975). Interestingly, however, Hitlin and Elder (2007*b*) discuss how agency is observable in present behavior and the anticipation of future events, but there is very little sense of how influential the past is for life course agency.

For people with an inauspicious life start (e.g., relative deprivation, abuse), the past offers a theoretically important springboard. We expect that adversity mars the past but offers room for redemption and life growth, though early hardship could conceivably lower the entire slope of perceived life trajectories. The question is essentially whether subjective trajectories exhibit patterns similar to or different from the more objective "trajectories of failure" (e.g., educational disruption) so often seen in studies of early disadvantage (e.g., McLeod and Fettes 2007).

The dialectic of agency and structure has occupied a central place in the sociological imagination. Empirically elucidating the interplay between agency and structure, then, is an important and ongoing task. Following theorists such as Bourdieu, Giddens, and Sewell, life course sociologists too have made important contributions to how we understand structure (e.g., Shanahan 2000; Mayer 2009). We argue that to the extent that childhood experiences constrain particular elements of human agency for the remainder of life, early biography can be viewed as a structuring force in the life course. Our analysis, therefore, focuses on life course agency, in which an actor reflects on and seeks to shape the life course across an "extended temporal horizon" (Hitlin and Elder 2007*b*, p. 182; see also Shanahan 2000).

In developing their theory of age-graded informal social control, Sampson and Laub (2005) reach a similar conclusion in critiquing both the developmental and structural perspectives in criminology. They contend that the structure/agency dialectic results in *situated choices*. We judge this to be a prescient way to depict the structure/agency dialectic for how actors' choices are constrained. The present analysis, however, examines how actors judge the *accumulation* of life experiences and whether these judgments are consequential to managing misfortune early in the life course. We anticipate that though positive life appraisals at one point in time will lead to more positive life appraisals in the future, such wishful thinking will have different benefits according to the level of adversity accumulated during early life.

RESEARCH QUESTIONS

We formulate two main research questions to advance our understanding of the structure/agency dialectic and the long-term consequences of early adversity. First, we ask whether childhood adversity affects diachronic life evaluations. That is, do high levels of early adversity dampen one's overall life evaluation, spanning the past, present, and future? One potential is that an inauspicious start suppresses optimism for the future, creating the perception of a negative life trajectory from the past to the future. Alternatively, early adversity could mean that life seems to be improving after a turbulent start. Either way, diachronic life evaluations provide a window into how actors interpret their lives and anticipated futures.

Our second main research question concerns the nature of life course agency and pits expectations for the future against the future itself. Using a follow-up wave to the same survey, we investigate how diachronic life evaluations—reflective and prospective alike—affect one's evaluations. If perceptions about past and future matter, we should observe that positive reflective and prospective evaluations confer some benefit in how people evaluate their lives. In pursuing this question, however, we also examine whether adverse experiences offset the beneficial effects of these positive life evaluations. In other words, do adversities from childhood diminish the otherwise favorable outcomes associated with reflecting positively on one's lived experience and expectations of a bright future?

DATA AND METHODS

National Survey of Midlife Development in the United States

Data are drawn from the National Survey of Midlife Development in the United States (MIDUS; Brim et al. 2000). 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 ages 25–74 in the contiguous 48 states.[10] Next, the investigators used disproportionate stratified sampling to oversample males between 65 and 74. The response rate from these initial telephone interviews was 70%. The final stage included a two-part follow-up questionnaire mailed to those who participated in the telephone interview, yielding an 86.6% response rate. Thus, the overall response rate was 61% (.70 ×. 87 = .61), producing a total sample of 3,032 participants who completed both the telephone and mail interviews. After we removed subjects with missing data points, the total study sample comes to 2,956 for wave 1 analyses.

Respondents from wave 1 were then contacted 10 years later, in 2005, to secure their participation for wave 2. Of the complete wave 1 sample, 1,748 individuals completed both the telephone and self-administered follow-up interviews (58%). Sixty-eight cases were removed for missing data (N = 1,680). Data from both waves come primarily from the questionnaire portion of the survey since this was the section in which respondents were queried on past, present, and future life evaluations.

Measures

The dependent variables for this study come from life evaluation questions at waves 1 and 2. At both time points, respondents were first asked: "Using a scale from 0 to 10 where 0 means 'the worst possible life overall' and 10 means 'the best possible life overall,' how would you rate your life overall these days?" Next, they were asked to use the same metric and evaluate their life 10 years prior ("Looking back ten years ago, how would you rate your life overall at that time using the same 0 to 10 scale?"). Finally, they were asked to look ahead 10 years into the future and provide an expected life evaluation ("Looking ahead ten years into the future, what do you expect your life overall will be like at that time?").

Our analyses of wave 1 utilize all three diachronic points of life evaluation, and our analysis of wave 2 uses life evaluation from that point in time. We also used the data points from wave 1 as indicators for two additional measures. First, we calculated an average evaluation of lived experiences at wave 1, adding past and present life evaluations and dividing by two. We refer to this measure as *reflective life evaluation*. The other key wave 1 measure is

[10]An important aspect of the MIDUS study is the nature of this sampling frame. While the investigators gleaned much information about childhood events and current life conditions, individuals with the most adverse early life experiences would likely be omitted from consideration, assuming that they were at higher risk of incarceration or early death.

prospective life evaluation, which is simply life evaluation projected 10 years into the future. Life evaluation variables were centered around their means when used as independent variables in regression analyses to reduce multicollinearity, as they were multiplied to estimate interaction effects.

In order to measure the extent of adversity experienced early in the life course, we created a summary score of 16 different events. Indicators of childhood adversity were (1) selected on the basis of prior literature (e.g., Turner et al. 1995; Felitti et al. 1998) and (2) drawn from the available pool of MIDUS questions on childhood. These items include receipt of welfare; less than a high school education for father (or mother, in households in which father was not present); report of being "worse off" than other families; lack of a male in the household; parental divorce; death of a parent; physical abuse at the hands of a mother, father, siblings, or other person; emotional abuse by any of the same parties; and reported "fair" or "poor" physical health and mental health at age 16. Of the 16 variables, 12 were not initially in dichotomous form, so they were recoded as binary markers for experiencing the given adversity.[11] In order to retain as many respondents as possible, we generated an average score for all subjects with at least half of the questions answered. *Childhood adversity* is the count of conditions experienced in childhood.[12] The variable was centered around its mean for analyses in which interactive effects were estimated (table 3 below). We also test for polynomial forms of childhood adversity.

To investigate the possibility that various types of adversity may have distinct effects, we also undertook a latent class analysis to better understand whether specific domains of disadvantage shape perceived life course trajectories in different ways. The best-fitting latent class model included six distinct classes (as determined by Vuong-Lo-Mendell-Rubin likelihood ratio tests): (1) abuse (physical or emotional) perpetrated by mother; (2) abuse perpetrated by father; (3) abuse perpetrated by other person; (4) abuse perpetrated by mother, father, sibling, and other person; (5) family/structural strain; and (6) a nonexposure group.[13] Substantively, the six classes were associated with the dependent variables in the same direction and with similar effect sizes.[14] For this reason and owing to the large number of classes, the final models are presented with the summed adversity score (and polynomials of it) to capture the "*joint or cumulative effects of multiple traumas*" (Turner and Lloyd 1995, p. 268; Turner et al. 1995). We provide the results using the six clusters of adversity in appendix table A1, however, because it may be instructive for the study of other outcomes.

In supplementary analyses, we also tested specifications treating each childhood adversity separately and for the sum of two types: parental financial distress (i.e., poverty during childhood and received welfare) and all 14 other adversities. Neither of these specifications altered the major conclusions presented below, giving further support to the robustness of

[11]Having less than a high school education was coded as low education for head of household (father's education, or that of the mother if a father was not present in the household); reporting being worse off than the average family was coded as growing up in a poor household; experiencing abuse often or sometimes from siblings, mother, father, or other was considered a report of abuse, in the case of both emotional and physical abuse; and a report of fair or poor health was considered poor childhood health in the case of both emotional and physical health.

[12]An analysis of missingness revealed that only seven subjects were missing more than half of the childhood adversity questions. Because these subjects were, on average, slightly five years older than the other participants, it appears that the problem was one of remembering questions from their distant childhood. In general, patterns of missingness were not related to childhood adversity scores (i.e., those missing fewer than eight items did not have higher or lower average childhood adversity scores) or to the dependent variables.

[13]Specifically, as a likelihood ratio test, the comparisons are made from a current model to the previously estimated one. Therefore, a significant test statistic indicates that the current model fits the data better than the previous model. All *P*-values were significant until the seven-class model, which indicated that the seven-class model was not better fitting than the six-class specification, but that six classes were better than five, five were better than four, and so on. Results were consistent when using the Lo-Mendell-Rubin adjusted likelihood ratio test as a check.

[14]As an exception to this general pattern, the abused by "all" parties class (4) has a slightly larger effect and the abused by "other person" class (3) has a somewhat smaller effect.

our findings. Nevertheless, retrospective reports of early adverse events are prone to underreporting bias, so there is some likelihood that the relationships between childhood adversity and life evaluations reported in this article are underestimated (Hardt and Rutter 2004).

Analyses include controls for a number of correlates of life evaluations, each of which were measured at wave 1. Age was coded as a continuous variable, and sex and race were coded as binary variables (1 for female, 1 for black), respectively. An age-squared term was explored, but since it did not improve model fit for the models presented herein, it was removed from final analyses. Three dummy variables adjust for marital status, including currently married, currently divorced/separated, and widowed (never married is the omitted reference group). Two markers of social class were included. Education is an approximated count of years in formal education (e.g., high school diploma = 12 years, master's degree = 18 years). Household income was measured as the dollar midpoint corresponding with categories from 0 (no income) to 31 ($1 million or more), divided by the number of people living in the household and log-transformed because of its skewed distribution.

Finally, adverse childhood experiences are related to health and health behaviors (Turner and Lloyd 1995; Felitti et al. 1998; Dube et al. 2003), and health issues, in turn, have a marked influence on life evaluation. Health-related binary variables are thus included for smoking, sedentary lifestyle (engaging in vigorous or moderate activity less than once a month), and obesity (body mass index greater than 30). The MIDUS survey included an exhaustive battery of questions about medical conditions experienced within the past 12 months, as well as the experience of heart disease and cancer at any time during the respondents' lifetime.[15] We first divided morbidity into serious (life-threatening) and chronic illnesses (Ferraro and Farmer 1999), creating binary variables for the presence of each type at wave 1.[16] For the portion of the analysis that predicts life evaluations at the follow-up wave and examines the discrepancy between expected and attained life evaluations, we also included a measure for 12-month (recent) morbidity not observed at wave 1 (incident morbidity). This latter measure, therefore, captures new and recently diagnosed wave 2 conditions.

Nonresponse

One of the important considerations when analyzing more than one wave of survey data is the potential bias due to attrition. Because one of the foci of this study is whether people attain their expected level of life evaluation or instead fall behind, it is crucial to keep in mind that the loss of subjects may be systematically related to their life evaluation. Indeed, preliminary analyses indicated that subjects who were not followed up at wave 2 had lower life evaluations at wave 1 and had lower anticipated levels for the future. This is an issue of concern because attrition poses the risk of model specification error and bias in the results. We therefore follow the Heckman (1979) method of correcting for nonresponse bias by first estimating a probit model predicting likelihood of wave 2 response, using a variety of demographic and psychosocial variables as predictors.[17] The next step was to calculate a hazard instrument, based on the inverse Mills ratio of the function derived from the probit model. This score is considered the hazard of nonresponse and included as a control variable in regression estimates.

[15]In addition to the two illnesses mentioned, these conditions include asthma, bronchitis, emphysema, tuberculosis, thyroid disease, hay fever, recurring stomach trouble, urinary or bladder problems, constipation, gall bladder trouble, persistent foot trouble, varicose veins requiring treatment, HIV/AIDS, autoimmune disorders, trouble with gums or mouth, persistent trouble with teeth, hypertension, emotional disorders, alcohol or drug problems, migraine headaches, chronic sleeping problems, diabetes, neurological disorders, stroke, ulcer, hernia, rupture, piles or hemorrhoids, and swallowing problems.

[16]Cancer, diabetes, heart disease, HIV/AIDS, hypertension, diabetes, and stroke are considered serious (life-threatening) illnesses, and all others are classified as chronic.

Analysis

The first portion of the analysis involves fitting a model of perceived life trajectories that estimates the intercept and slope of the three diachronic life evaluation data points at wave 1—past, present, and future. The model was estimated using MPlus, specifying the baseline probability weights representing the inverse probability for being selected into the sample on the basis of values from the 1995 Current Population Survey (geographical region, metropolitan statistical area, sex, race, age, education, and marital status).

In a statistical sense, the model was specified similarly to a latent growth curve model; it included a latent intercept and latent slope for perceived life evaluation, which allowed individuals to vary on both their initial life evaluations and the shape of their trajectories over diachronic time. The model differs, however, from true latent growth models in that it does not span an actual period of chronological time. If assumed to be a traditional growth model, the approach could be questioned on the basis of period bias since observations were not independent in time. Diachronic indicators, however, are by their very nature entities that do not correspond to actual moments in historical time. Rather, they reflect the actor's *evaluation* of the specified time. Our use of a trajectory model in this context, then, is somewhat unique, but it offers an efficient way to capture temporal judgments.

In such trajectory models, time-specific individual-level measures are assumed to contain input from two sources: the latent process under consideration and random error. If we assume that the process of interest follows a linear pattern over diachronic time, the individual measures can be modeled with an individual-specific intercept and slope across time plus error. The level 1 equation is

$$Y_{it}=\alpha_i+\beta_i\lambda_t+\varepsilon_{it},$$

where Y_{it} is the response variable for individual i at time t; α_i is a subject-specific intercept term; $\beta_i\lambda_t$ is the subject-specific slope multiplied by diachronic time; and ε_{it} is the disturbance for individual i at diachronic time t.

This portion of the model captures the within-individual trajectory over diachronic time and is essentially equivalent to the level 1 submodel in the hierarchical linear model framework. In a structural equation modeling framework, the variance of the errors can be fixed or forced to be equal across time. We allow them to vary.

The second level of the model allows the random intercepts and slopes to be a function of covariates. In this model, the random intercept and slope are allowed to correlate. The level 2 equations are

$$\alpha_i=\mu_\alpha+\sum_{k=1}^{K}\gamma_{\alpha k}x_{ik}+\xi_{ai},$$

[17]The specific variables used to predict response were age, years of education, sex, race, smoking status, self-rated health, presence of a heart condition, marital status, report of perceived discrimination, and sedentary lifestyle. There is therefore some, but not complete, commonality in predictors between the selection model and our substantive models. One of the potential problems with using a Heckman approach is that the overlap in selection predictors with substantive predictors often results in collinearity (Bushway, Johnson, and Slocum 2007). We therefore undertook the regression diagnostic checks recommend by Bushway et al. to ensure that this was not a problem in our models.

$$\beta_i=\mu_\beta+\sum_{k=1}^{K}\gamma_{\beta k}x_{ik}+\xi_{\beta i},$$

where α_i and β_i are the intercept and slope for individual *i* and μ_α and μ_β are the means of the intercept and slope when the *x* variables equal zero. The remaining part of each equation sums for *K* time-invariant variables, the effect of each predictor on the random intercept and slope, and includes a disturbance term representing deviation from the mean intercept and slope for individual *i*, respectively. Adverse childhood experiences are the chief predictor of the intercept and slope, with adjustments made for the other variables.

We recognize that this method of estimating trajectories is a departure from typical forms of the growth curve model, which utilize data with at least three discrete measurement occasions. The three time points composing the diachronic trajectories, although measured at the same time point (wave 1), capture three points in perceived time: the diachronic self located in the past, present, and future. Hence, we consider it analogous to a *theoretical* growth curve. It is important to recognize that while we are studying time in a subjective sense, nothing about the statistical estimation requires a differentiation between objective and subjective temporal coordinates. Treating time in our trajectory model is thus a conceptual—not a mathematical—departure from common approaches, but one that is fitting and parsimonious given the nature of our research topic.

To consider how life evaluations at wave 1 affect attained evaluations at wave 2, the analysis moves to a set of ordinary least squares regression equations. The outcome across all seven models is life evaluation scores at wave 2, but independent variables were entered in blocks. The first set of equations are specified with main effects only and the last three with interaction terms for adverse childhood experiences and perceived life trajectories. In doing so, we differentiate the potential influence of reflective and prospective life evaluations. We view a significant and negative interaction between early adversity and either reflective or prospective life evaluation as constituting evidence of constraint on agentic optimism.

FINDINGS

Descriptive statistics for the sample are presented in table 1. Consistent with the notion that one's lot in life will improve over time, mean values of past, present, and future life evaluation likewise rise, from 7.201 to 7.661 to 8.258 (each contrast is significant at $P < .001$). As for actual life evaluation as reported at wave 2, however, the overall mean fell short of expectations by 0.409 units.

Observing that there was indeed variation over three diachronic life evaluations at wave 1, we proceeded to investigate whether adverse childhood experiences help explain the average of the three evaluations as well as the shape of their trajectory. As shown in table 2, an examination of the relationship between childhood adversity and life evaluation indicates that the number of adverse experiences is indeed related to diachronic perceptions of change in life evaluation. Experiencing more adverse early events is associated with a lower intercept, indicating that challenging childhood years lead to a lower starting point for life evaluation. Specifically, each additional childhood adversity was associated with an 0.18-point decrease in mean initial life evaluation. For example, with a mean intercept of about six when predictor variables are equal to their mean, reporting five adversities would be associated with about a one-point lower level of initial life evaluation (mean initial life evaluation of five compared to six for those with five adversities compared to those with no

adversities). At the same time, higher levels of early adversity are related to a higher positive slope, indicating that inauspicious beginnings lead to the perception that things are getting better—or that the person has more room to improve. Figure 1 demonstrates this effect, showing that while respondents high in the distribution of childhood adversities differ markedly in their intercept from those with no reported childhood adversities, the two lines reach a near convergence at the expectation for future life evaluation. With a mean slope of 1.4 when all covariates equal their mean, five adversities would be associated with about a third of a point increase over and above that mean at each time point.

In estimating the perceived life trajectory models, we also examined the childhood adversity variable in alternative forms, including dummy variables to examine threshold levels, separate clusters of adversity based on the type of experience (e.g., socioeconomic, health, family dissolution), nonlinear specifications of the adversity count, and different classes of adversity as determined by latent class analysis (in MPlus). Results from the alternative model specifications, presented in table A2 (app. A) were quite similar in model fit to those presented in table 2 with childhood adversity as a count variable (confirmatory fit index [CFI] = .968, root mean square error of approximation [RMSEA] = .028).[18] Indeed, the pattern of significant relationships for the covariates was identical to what was observed in the more parsimonious analysis using the sum of childhood adversity.

Divorce, an adult experience often associated with adverse consequences, is similarly related to a lower intercept but an upward slope from 10 years in the past to a decade in the future. Manifesting the opposite pattern, greater age is related to higher starting values of diachronic life evaluation but with a downward trajectory in looking forward. More highly educated subjects tended to have upward slopes. Obese respondents, like those who are divorced, tend to have a lower starting point for life evaluations but see things as getting better. Respondents with serious or chronic illnesses, although reporting lower initial life evaluations, do not demonstrate a similar level of optimism. This is demonstrated by the nonsignificant slope coefficient. Females, however, tend to be somewhat more optimistic about their future prospects.

Figure 2 shows graphically how varying levels of the childhood adversity count variable influence both reflective and prospective life evaluations. This analysis separates the three elements of the diachronic trajectory into the two pairs of life evaluation anchored in the present, identifying whether early adversity affects reflective and prospective evaluations up until a certain threshold or whether its effect is consistent across its range. The effect of early adversity is fairly linear for both evaluations: higher levels of childhood adversity dampen life evaluations. Though both evaluations are lower overall at higher levels of childhood adversity, the growth curve analyses (table 2) demonstrate that high levels of early adversity actually increase the slope of life evaluations relative to their intercepts.

Having established that adverse childhood experiences leave adults lower in their overall life evaluations yet predispose them toward height-ened optimism for a better future, we move to a regression analysis to examine whether things actually improve with time. In table 3, the dependent variable is life evaluation as reported at wave 2. The first four columns are reduced models showing the effects of childhood adversity, reflective life evaluations, and prospective life evaluations. Model 5 estimates the key variables mentioned above as well as the full range of controls. In order to test whether early adversity offsets the reflective and prospective life evaluations, which would otherwise increase the possibility of enhanced future life evaluation, we also multiply childhood adversity scores by reflective life

[18]For instance, model fits for alternate model specifications were CFI = .970, RMSEA = .025 (six-category latent class specification) and CFI = .968, RMSEA = .021 (dummy variable for each adversity, zero adversities as a reference group).

evaluations (model 6). Model 7 includes the interaction of childhood adversity with prospective life evaluations. Finally, model 8 includes both interaction terms.

From models 1 and 2, it is apparent that childhood adversity continues to negatively affect life evaluations at wave 2, but the relationship is underestimated unless one takes into account a squared term of childhood adversity. The effect of childhood adversity on wave 2 evaluations is fairly steep through the lower levels of the variable but tapers off at the high levels of childhood adversity. The inflection point of the quadratic curve was at 6.02 adversities, which corresponds with the highest 5% of adversity scores.

In model 3, high levels of both elements of life evaluation at wave 1 predict higher life evaluations in the actual future. The effect is stronger for reflective evaluations than for prospective evaluations, however (a β of .27 vs. a β of .15, respectively). Essentially, people's attained life evaluation at wave 2 is a result of both lived experience pushing forward and expected experience pulling along, though it seems that lived experience has more influence. When childhood adversity and its squared term are added to the life evaluation predictors, each variable retains a significant effect on wave 2 life evaluations, again revealing diminishing consequences for very high levels of early adversity. Note also that the R^2 values increased appreciably from models 1 and 2 to models 3 and 4, signifying that the direct effect of childhood adversity on wave 2 life evaluation is modest.

Model 5 introduces the full set of control variables to ascertain whether the effects of wave 1 life evaluations and childhood adversity remain. Each remains significant, though the effect of childhood adversity is attenuated somewhat. With the full set of control variables and with reflective and prospective life evaluation variables included, childhood adversity contributes relatively little to the variance explained (about .007 difference in R^2 when adversity is removed from the equation). Though these direct effects are modest, we consider the moderating effects of childhood adversity (mentioned below) to be of chief substantive and theoretical importance.

In model 5, higher levels of logged household income are associated with higher levels of life evaluation when we adjust for other variables, whereas the inception of an illness, whether chronic or serious, is associated with lower life evaluations. The final three models estimate a parallel equation with the addition of the two interaction terms (childhood adversity by each type of life evaluation), entered separately (models 6 and 7) and simultaneously (model 8). The variable for adverse childhood experiences multiplied by reflective life evaluation is negative and significant, indicating that the effect of positive reflections on lived experience at wave 1 is offset by childhood adversity. In other words, respondents who experienced considerable childhood adversity derived less benefit from positive reflexivity. The second interaction term (model 7) is also negative and significant, suggesting that adverse childhood experiences likewise limit the otherwise beneficial effects of projected favorable life evaluations. When both interaction terms are included, childhood adversity×reflective life evaluation becomes nonsignificant, but the childhood adversity×prospective life evaluation coefficient remains significant. The conclusion we draw from both interaction terms is that the anticipated boost from reflective and prospective life evaluations tapers off for those persons with high levels of childhood adversity. The dampening effect of childhood adversity, however, is especially important for optimistic future projections, since only this interaction effect remains significant when the two multiplicative terms are included simultaneously in the model. These results show that there are limits to wishful thinking for adults who suffered misfortune as children.

DISCUSSION

Some of our most eminent social psychologists from the 20th century argued for sociologists to bring people back into social science research (Mead 1934; Goffman 1959; Wrong 1961; Homans 1964; Blumer 1969). Far from puppets that mindlessly fall into a structurally determined pattern of behavior, humans make sense of their social worlds and how they fit within them. This process involves interpreting one's past and looking toward a malleable future. Sociological studies have had little difficulty showing that structurally generated disadvantage serves to limit life chances, and the analyses from these national data concur. Nevertheless, our goal was also to integrate components of self-reflexivity, projection, and personal agency in the study of how early adversity influences the life course. In doing so, we build on the legacy of Mead, Homans, and others to bring the person back into the study of social life and cumulative inequality, in particular.

To that end, this study set out to investigate the long-term consequences of childhood adversity for people's life evaluations during adulthood. We investigated whether a range of early misfortunes dampened an overall sense of past, present, and future life evaluation, as well the trajectory of those three evaluative time points. In addition, we explored whether the perception that things would get better was "wishful thinking."

Long-term effects of childhood disadvantage have been well established across a range of life experiences, such as adult health (Hayward and Gorman 2004) and social mobility (Biblarz and Raftery 1993); indeed, this large body of literature suggests that the early portion of the life course is pivotal for lifelong development and structures (i.e., constrains and enables) developmental trajectories (McLeod and Almazan 2003).[19] We have attempted to locate the self and its diachronic sense of life progression within the framework of the life course and cumulative inequality theory. Boiled down to a simple question, is the self able to overcome early adversity? Although many believe that the race is to the swift, we sought to better understand how people interpret a rough start, perhaps pushed off course by structural disadvantage or the hurtful behavior of others.

Our results reveal that agency, conceived as "an internally complex temporal dynamic" (Emirbayer and Mische 1998, p. 963), results in diverse interpretations of early adversity. On the one hand, respondents facing high levels of early adversity tend to see the trajectory of their life improvement as on the rise; despite an inauspicious start and an overall dampened sense of life evaluation, *people experiencing higher levels of childhood adversity are more likely to believe that things are getting better*. Past studies of Americans' life trajectories demonstrate a pattern in which people anticipate brighter days (Lachman et al. 2008). When a series of challenges or setbacks is involved in this process, many people seem to go further in search of redemption, self-improvement, and growth (McAdams 2006), and this does not seem to be an insurmountable task. Rather, resilience enabled by individual effort is a powerful script in life narratives (Rudd and Evans 1998); though starting from a lower position (i.e., lower intercept in subjective life trajectory), there is a greater sense of improvement (i.e., higher slopes in subjective). There is evidence to suggest that infusing life narratives with redemptive turning points is a psychologically adaptive strategy (McAdams et al. 2001).

On the other hand, the finding of statistical interactions between both reflective and prospective life evaluations at wave 1 and adverse childhood experiences for predicting

[19]As a reviewer aptly observed, a predominant assumption in the literature is that experiencing no adversities is optimal for achievement processes. Exposure to some adversity, however, may be critical for developing problem-solving skills and coping mechanisms.

wave 2 evaluations suggests that although higher life evaluations predict a better actualized future, accumulated childhood adversity compromises the buoyant outlooks. These results are obtained, furthermore, after adjusting for adult educational attainment, household income, and health status, among other factors. This is what we would expect if biography is capable of constraining life course agency and the optimism that things are getting better. Given that these childhood events occurred 20–80 years prior—yet still exerted an effect net of adult conditions—our results point toward an effect of *biographical structuration*.

Biographical structuration, as we think of it, refers to the constraining influence of a person's past for his or her present and future life chances. Structure is often portrayed as a set of present social conditions—external to the individual—that enables or limits choice. Social experiences, however, often have a more enduring existence than their momentary expression would suggest. It is through the human capacities of memory and narration that biographical details from across life are woven together and remain consequential for the present and future. This interpretive phenomenon adds another dimension to the concept of structure in the life course (Shanahan 2000; Mayer 2009). Situated choice, in other words, is biographically structured, reflecting both one's social location and lived experiences.

Putting biographical structuration in the context of our findings, childhood adversity is not wiped clean with the progression of time, but its influence continues through life evaluations, including via its grip on early life evaluations. Early adversity is fundamentally rooted in concrete social conditions and meaningfully incorporated into human narrative; in this way, biographical experiences—as subjective and interpretive orientations to the past, present, and future—can constrain life course agency and work in tandem with the more objective structural forces that generate and increase interindividual inequality.

Our results also highlight the mechanism of path dependency in how early adversity translates into revised life trajectories. Linking together lines of action arises "out of a background of previous actions" and "is connected with a context of previous action" (Blumer 1969, p. 20). Many presume that calls for studying such lines of action require a qualitative approach, but we have shown that these phenomena can be studied quantitatively. With diachronic evaluations and longitudinal data, we uncovered a process whereby most people formed interpretations of early adversity that enabled them to engage in wishful thinking. Status and evaluation are relative, and these judgments are made in light of significant others or personal biography. Early adversity led to lower intercepts but steeper positive slopes.

These results were derived from a sample that was 25–74 years of age during the initial interview, thereby suggesting that people do not abruptly move on from adversity faced during childhood. In this regard, the results from table 3 also revealed the importance of accumulated adversity for shaping life course pathways. Coping with a single childhood adversity is hard, but when the adversities pile up during the early years, path dependence is more substantial over the adult life course.

These findings also yield fresh insights for cumulative inequality theory. While past research drawing from the cumulative disadvantage/advantage paradigm has called attention to the importance of early events for shaping life course trajectories, it has not prioritized key underlying social psychological processes that may influence trajectories. Cumulative inequality theory was articulated to recognize the importance of human agency within social systems; people are dealt advantages and disadvantages, but instead of passively floating along, they observe, interpret, and seek to change their social reality (Goffman 1959; Blumer 1969). This article, by developing the concept of biographical structuration, found that such realities are not altogether malleable.

There is evidence to support the idea that people perceive things to be getting better, but the findings also highlight the life-pervading damage of early adversity, or the "long arm" of childhood adversity (Felitti et al. 1998; Hayward and Gorman 2004; Haas 2008). After we accounted for wave 1 life evaluations, childhood adversity maintained a negative effect on life evaluations at wave 2. Moreover, childhood adversity counteracted the positive effects of such wave 1 life evaluations. The belief that hope springs eternal implies that existential agency—or agency as a subjective sense of *capacity* (Hitlin and Elder 2007*b*)—is not tightly circumscribed.[20] However, inauspicious beginnings may suppress life course agency in the sense of actually being able to attain a more fulfilling life. Future work using cumulative inequality theory should further specify how life perceptions redirect trajectories and consider the consequences of unfulfilled expectations. Does having more optimistic life evaluations protect mental or physical health or help career trajectories regardless of whether expectations are fulfilled?

Our aim has been to explicate a general framework for coupling adversity and inequality with the self, thereby lending a new eye to the role of agency in life course inequalities. Though our approach was pursued mostly on the basis of its innovativeness, we urge future researchers to more carefully refine particular types or configurations of adversity or disadvantage and their effects on reflexive and projective evaluations of life course trajectories.[21] The particular dependent variable we used, a general evaluation of a person's life, can also be expanded in future research to include more specific domains. For example, trajectories of school success and failure among youths are elucidated by incorporating measures of the expectations of teachers (McLeod and Fettes 2007)—an exemplary approach. At the same time, including subjective appraisals by the actors themselves can also illuminate processes of how inequality accumulates (or fails to accumulate despite early adversity). Unfortunately, our data were limited to adults, and so we are unable to speak to the possibility that biographical evaluations in childhood or adolescence shape important life course outcomes such as status attainment in early adulthood. Adult health, however, is an important context to observe the implications of pessimistic versus optimistic perceived life trajectories; we see this direction for future research as a natural extension of the findings presented in this piece.

It is also worth noting that a limitation of the current research was the reliance on recollections of early adversity. Although retrospective reports allow for a unique life course analysis without the difficulties of actually following respondents over their lifetimes, we agree with O'Rand and Hamil-Luker (2005) that such designs are inherently limited because subjects may have recall problems. Nevertheless, we also concur with them that having measures of numerous forms of adversity is preferable to having only one or two indicators. By examining a composite score of the cumulative burden of these early adversities, we acknowledge that recall of early events will be imperfect but still capture a range of negative experiences. The reason is that the score captures an approximation of total adversity rather than a crude binary distinction between adversity and nonadversity.[22] Respondents may also recollect the occurrence or intensity of events from their past differently depending on their current condition (i.e., endogeneity of the independent and dependent variables). Past

[20]This is consistent with emerging evidence from the neurosciences, which suggests that humans have a built-in proclivity toward optimism (Sharot et al. 2007).

[21]Although the terms *adversity* and *disadvantage* are often used as synonyms, we draw a distinction. Adversity refers to specific events that are perceived to be unfortunate or undesired, but disadvantage relates to a condition—a structural position—in some type of hierarchy.

[22]Much in the same way, it could be noted that we relied on recollections of life satisfaction gathered in 1995 but referencing 10 years in the past (1985). This, however, is less of a concern because our interest is not in garnering an "objective" past life evaluation. Diachronic evaluations are by their very nature rooted in the present but building from a remembered past and looking forward to an anticipated future (Mead 1932). Therefore, we fully anticipate that recollected life satisfaction would not match actual evaluations from 1985 if we were to have them available.

research using recall measures of childhood events indicates that underestimation is more common than overestimation (i.e., people report fewer adversities than occurred) and that the probability of potential bias produces overly conservative estimates (Dube et al. 2003). It is therefore likely that the findings presented are weaker than they would be if perfect measurement was available. These are important considerations for studies using retrospective data, and the current findings must be considered in light of such limitations.

The findings from this investigation also highlight the importance of the *accumulation* of adverse experiences. Although we examined whether the specific types or clusters of childhood adversity differentially shaped life trajectories, the analyses confirm those by Turner and Lloyd (1995) that the joint or cumulative effects of adverse childhood experiences mattered most. Life trajectories were less buoyant for persons experiencing multiple adversities, regardless of which adversities were reported. The relationship between childhood adversity and life trajectories was fairly linear through six reported adversities, but there was some tapering of this effect for persons with seven or more of the 14 possible adversities. Our finding on nonlinear relationships suggests that more attention needs to be given to studying accumulation processes. The term accumulation is used in many ways in life course studies, epidemiology, and criminology. Is accumulation simply adding items, or are there properties of how these accumulate that are important? Does the timing, or at least sequencing, of the accumulation matter? Are continual bouts of accumulation equal in their effects to those that occur intermittently? These and related questions merit consideration as scholars seek to advance our understanding of accumulation processes that shape the life course.

In conclusion, humans piece together strands of their past and present experiences to create a coherent life narrative (Mead 1934; Goffman 1959; Blumer 1969; Maines et al. 1983; McAdams 2001), and their dispositions toward the future tend to emphasize potential for growth and positive change (Markus and Nurius 1986). Even yet, evidence suggests that the constraining forces of early disadvantage prevail, suggesting a bounded nature of life course agency within the structuring context of biography. Persons dealt an inauspicious start in life often foresee improvement in their life evaluations, but their actual increase in life evaluation falls increasingly short of expectations when they accumulate high levels of adversity early in the life course.

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Appendix

TABLE A1

Results of Latent Class Analysis, 16 Adversities

Item	Latent Class						
	Class 1 (Abused by Father)	Class 2 (Abused by All)	Class 3 (Abused by Other)	Class 4 (Abused by Mom)	Class 5 (Structural Strain)	Class 6 (Low Exposure)	Actual Percentage in Sample
Welfare	.10	.22	.03	.05	.27	.01	.06
No male in household	.05	.11	.00	.00	.61	.00	.06
Parent died	.05	.08	.04	.04	.25	.06	.07

Item	Latent Class						Actual Percentage in Sample
	Class 1 (Abused by Father)	Class 2 (Abused by All)	Class 3 (Abused by Other)	Class 4 (Abused by Mom)	Class 5 (Structural Strain)	Class 6 (Low Exposure)	
Parents divorced	.15	.22	.07	.12	.59	.05	.13
Physical abuse:							
Mom	.13	.74	.00	.88	.13	.00	.19
Dad	.76	.58	.04	.36	.03	.02	.18
Other	.14	.86	.49	.11	.10	.03	.19
Sibling	.07	.27	.06	.11	.03	.01	.06
Emotional abuse:							
Mom	.00	.23	.06	.41	.21	.03	.11
Dad	.92	.13	.13	.00	.03	.05	.14
Sibling	.50	.82	.68	.53	.35	.22	.40
Other	.24	.92	.88	.17	.19	.01	.26
Low education—head of household	.45	.48	.32	.44	.33	.40	.40
Poor physical health age 16	.04	.14	.04	.07	.03	.02	.04
Poor mental health age 16	.11	.26	.07	.10	.11	.03	.08
Poor household	.45	.44	.24	.27	.59	.18	.27

TABLE A2

Analysis of Slope and Intercept of Perceived Life Trajectories Using Latent Classes

Independent Variable	Intercept		Slope	
	b	SE	b	SE
Childhood adversity:				
Class 1	−.663***	.158	.204*	.092
Class 2	−1.316***	.190	.340**	.119
Class 3	−.219	.127	.130	.072
Class 4	−.546***	.145	.260**	.097
Class 5	−.673***	.162	.347***	.103
Demographic:				
Age	.048***	.004	−.037***	.002
Female	−.127	.076	.122*	.048
Black	.317	.172	−.020	.098
Married	.238	.127	.127	.091
Widowed	.505*	.206	−.130	.158
Divorced	−.687***	.156	.405***	.106
Social status:				
Education	−.022	.016	.022*	.010
Income (logged)	.010	.030	.017	.019

	Intercept		Slope	
Independent Variable	**b**	**SE**	**b**	**SE**
Health:				
Smoker	−.188	.102	.061	.065
Obese	−.286***	.087	.128*	.056
Sedentary lifestyle	−.449	.339	−.053	.301
Serious medical condition (wave 1)	−.226*	.096	−.034	.064
Chronic medical condition (wave 1)	−.246**	.088	.004	.055
Random components:				
Intercepts:				
Intercept	5.623***	.354		
Slope	1.449***	.236		
Residual variances:				
Past life evaluation	2.712***	.257		
Present life evaluation	1.480***	.111		
Future life evaluation	.203	.197		
Intercept	.923***	.182		
Slope	.588***	.101		

Note.—*N* = 2,956, CFI = .972, RMSEA = .023. Latent classes are (1) abuse (physical or emotional) perpetrated by mother; (2) abuse perpetrated by father; (3) abuse perpetrated by other person; (4) abuse perpetrated by mother, father, sibling, and other person; (5) family/structural strain; and (6) a nonexposure group (reference group).

* *P* < .05 (two-tailed).

** *P* < .01.

*** *P* < .001.

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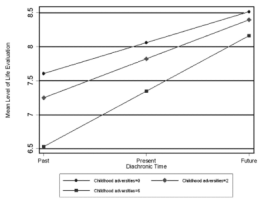

Fig. 1.
Perceived life trajectories by level of childhood adversity

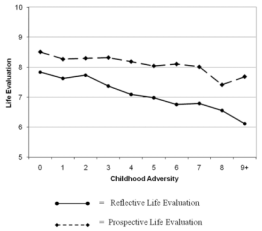

Fig. 2.

Reflective and prospective life evaluations across levels of childhood adversity (N = 2,956). F-tests show significant differences of both reflective life evaluations ($P < .001$) and prospective life evaluations ($P < .01$) across levels of childhood adversity.

TABLE 1

Descriptive Statistics from the Midlife Development in the United States Study

Variable	Range	Mean	SD
Life evaluation:[a]			
Past life evaluation (wave 1)	0–10	7.201	1.954
Current life evaluation (wave 1)	0–10	7.661	1.656
Future life evaluation (wave 1)	0–10	8.258	1.699
Current life evaluation (wave 2)	0–10	7.849	1.555
Childhood adversity	0–11	2.630	2.094
Demographic:			
Age	20–74	46.981	13.110
Female	0–1	.513	
Black	0–1	.067	
Married	0–1	.643	
Widowed	0–1	.057	
Divorced	0–1	.154	
Social status:			
Education	4–20	13.809	2.606
Income (logged)	−2.30–12.61	9.639	1.587
Health:			
Smoker	0–1	.227	
Obese	0–1	.280	
Sedentary lifestyle	0–1	.015	
Serious medical condition (wave 1)	0–1	.302	
Chronic medical condition (wave 1)	0–1	.738	
Incident serious medical condition (wave 2)	0–1	.333	
Incident chronic medical condition (wave 2)	0–1	.335	

Note.—Number of observations is 2,956 for wave 1 variables and 1,680 for wave 2 variables. SDs of binary variables are omitted.

[a]For wave 2 analyses, the average of past life evaluation (wave 1) and current life evaluation (wave 1) is the measure of reflective life evaluation. Future life evaluation (wave 1) is the measure of prospective life evaluation.

TABLE 2

Analysis of Slope and Intercept of Perceived Life Trajectories in the Midlife Development in the United States Study

	Intercept			Slope		
Independent Variable	**b**	**SE**	**Beta**	**b**	**SE**	**Beta**
Childhood adversity	−.179***	.020	−.289	.061***	.013	.134
Demographic:						
Age	.050***	.004	.516	−.037***	.002	−.529
Female	−.110	.077	−.042	.128**	.049	.066
Black	.249	.170	.064	.003	.098	.001
Married	.216	.124	.077	.126	.091	.062
Widowed	.450*	.203	.073	−.133	.158	−.030
Divorced	−.689***	.155	−.191	.400***	.107	.152
Social status:						
Education	−.031	.016	−.061	.026**	.010	.069
Income (logged)	.009	.030	.012	.018	.019	.033
Health:						
Smoker	−.147	.103	−.048	−.048	.034	.025
Obese	−.268**	.087	−.092	.122*	.056	.057
Sedentary lifestyle	−.475	.334	−.051	−.046	.302	−.007
Serious medical condition (wave 1)	−.196*	.097	−.070	−.032	.065	−.016
Chronic medical condition (wave 1)	−.242**	.087	−.082	.003	.055	.001
Random components:						
Intercepts:						
Intercept	4.581***	.376				
Slope	1.426***	.250				
Residual variances:						
Past life evaluation	2.712***	.227				
Present life evaluation	1.480***	.111				

AJS. Author manuscript; available in PMC 2011 August 4.

	Intercept			Slope		
Independent Variable	**b**	**SE**	**Beta**	**b**	**SE**	**Beta**
Future life evaluation . . .	.201	.196				
Intercept	.525***	.057				
Slope	.644***	.043				

Note.—*N* = 2,956, CFI = .971, RMSEA = .026, b = unstandardized coefficient.

* *P* < .05 (two-tailed).

** *P* < .01.

*** *P* < .001.

TABLE 3

Regression of Life Evaluation at Wave 2 on Independent Variables in the Midlife Development in the United States Study

	Life Evaluation (Wave 2)							
Independent Variable	**Model 1**	**Model 2**	**Model 3**	**Model 4**	**Model 5**	**Model 6**	**Model 7**	**Model 8**
Childhood adversity	−.098*** (.021)		−.252*** (.049)	−.171*** (.049)	−.127** (.048)	−.099* (.049)	−.118* (.047)	−.105* (.048)
Childhood adversity^2		.021*** (.006)		.021*** (.006)	.019** (.006)	.013* (.006)	.017** (.006)	.014* (.006)
Reflective life evaluation (wave 1)			.344*** (.037)	.339*** (.037)	.292*** (.038)	.321*** (.037)	.287*** (.036)	.303*** (.037)
Prospective life evaluation (wave 1)			.148*** (.034)	.146*** (.034)	.161*** (.035)	.159*** (.035)	.209*** (.035)	.201*** (.035)
Interaction terms:								
Childhood adversity×reflective life evaluation						−.038* (.017)		−.020 (.015)
Childhood adversity×prospective life evaluation							−.049*** (.015)	−.042** (.014)
Demographic:								
Age					.003 (.005)	.003 (.005)	.003 (.005)	.003 (.005)
Female					−.102 (.130)	−.122 (.129)	−.142 (.129)	−.146 (.129)
Black					.367 (.269)	.396 (.264)	.417 (.262)	.425 (.260)
Married					.190 (.155)	.171 (.155)	.168 (.155)	.161 (.155)
Widowed					.515* (.221)	.493* (.215)	.456* (.213)	.453* (.212)
Divorced					.502** (.168)	.488* (.165)	.511** (.166)	.503** (.165)
Social status:								
Education					−.026 (.029)	−.026 (.029)	−.028 (.028)	−.027 (.028)
Income (logged)					.185*** (.054)	.178** (.054)	.163** (.053)	.163** (.053)
Health:								

Independent Variable	Life Evaluation (Wave 2)							
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8
Smoker					−.169 (.123)	−.155 (.122)	−.141 (.122)	−.13 (.122)
Obese					.023 (.093)	.026 (.093)	.026 (.092)	.027 (.092)
Sedentary lifestyle					693 (.706)	.622 (.641)	.688 (.607)	.652 (.592)
Serious medical condition (wave 1)					.038 (.107)	.042 (.105)	.065 (.106)	.063 (.105)
Chronic medical condition (wave 1)					−.157 (.090)	−.152 (.090)	−.150 (.090)	−.148 (.090)
Incident serious medical condition (wave 2)					−.253** (.097)	−.261** (.096)	−.270** (.096)	−.272** (.090)
Incident chronic medical condition (wave 2)					−.328*** (.084)	−.329*** (.084)	−.329*** (.084)	−.329*** (.084)
Nonresponse					−1.219 (.680)	−1.272 (.673)	−1.401* (.674)	−1.402* (.671)
Intercept	7.77*** (.044)	7.547*** (.082)	7.783*** (.040)	7.559*** (.080)	6.951*** (1.212)	7.114*** (1.193)	7.334*** (1.193)	7.364*** (1.189)
R^2	.017	.023	.161	.168	.219	.225	.231	.232

Note.—N = 1,680. Childhood adversity, reflexive life evaluation, and prospective life evaluation are centered around their means. Numbers in parentheses are SEs.

* $P < .05$ (two-tailed).

** $P < .01$.

*** $P < .001$.

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