

Research both into the stress process and into the life course is concerned with changing lives. Yet, the conceptual paradigms that guide the work of these two fields are largely segregated, borrowing little from each other. This article explores some of the junctures at which the study of social stress might benefit from life-course perspectives and, conversely, those at which life-course research might profitably employ the vantage points of stress research. In the first case, an awareness of life-course trajectories can sensitize stress researchers to the restructuring of lives across time, particularly to the shifting landscape of stressors to which people are exposed and changes in their access to resources in dealing with the stressors. For its part, stress research may be useful in clarifying some basic life-course constructs. Thus, it can direct attention to conditions that help to define the experiential distinctiveness of historical cohorts and to conditions that produce intracohort variations. It is also useful in providing an interpretive framework for understanding how the timing and sequencing of transitional events impact people's lives. The perspectives of the stress process, finally, are also relevant to the critical appraisal of the constructs of life satisfaction and successful aging.

Key Words: Secondary stressors, Coping, Mastery

Stress and the Life Course: A Paradigmatic Alliance

Leonard I. Pearlin, PhD,¹ and Marilyn McKean Skaff, PhD²

Social stress in recent years has increasingly come to be recognized as a process that extends through time. When viewed as a process, studies of stress are essentially studies of changing lives: changing conditions having the potential to affect people adversely, changing responses to these conditions, and changing consequences for well-being. Because stress processes and the changes they encompass may unfold over considerable spans of time along the life course, they become inherently intertwined with and indistinguishable from what we ordinarily think of as development and aging. When we examine changes prompted by the stress process, therefore, we may at the same time be observing changes that can also be described as life-course developments.

The areas of convergence that exist between research into social stress and that concerned with the life course have a synergistic quality, with each field of inquiry capable of informing the other. Thus, an understanding of the stress process can contribute to the understanding of life-course trajectories and, conversely, life-course perspectives provide vantage points for the examination of stress processes and their variations. The two fields have several areas of common concern that provide some of the foundations of these reciprocities. For example, there is a shared interest in the following substantive matters:

the epochal and historical circumstances that distinguish birth cohorts; the social warp and weave of aging, especially transitions into and out of social roles and their timing and sequencing; the recognition of personal and social resources, such as competence, control, and social support; and the identification of the outcomes of long-term processes, with life-course research traditionally focusing on positively phrased outcomes and stress research on those that are negatively phrased. The two lines of research also occasionally display a sensitivity to social variability and the dynamics of change along multiple trajectories.

It will be noted that we use the construct of the life course in a somewhat inclusive fashion, treating it, for example, as interchangeable with life span development. However, we do not regard the congeniality that exists between stress and life-course research to extend to all theoretical orientations to aging and development. In particular, work that centers on the continuity of personality through time (e.g., Costa & McCrae, 1989) and that which treats aging as the imperative passage through ordered stages (e.g., Levinson, 1978) seem to lack the synergism we can observe between stress and life-course orientations. To the extent that scholarly work in personality and life stages ignores social differentiation and critical experiences that produce change and variation along the life course, they provide no two-way bridges that would join them to research into social stress.

Our discussions of the reciprocities between stress and life-course perspectives are organized around what we have described as the major concep-

¹Address correspondence to Leonard I. Pearlin, PhD, Department of Sociology, 2112 Art-Sociology Building, University of Maryland, College Park, MD 20742-1315.

²Program on Human Development and Aging, University of California, San Francisco.

tual components of the stress process: stressors, moderating resources, and outcomes (Pearlin, Lieberman, Menaghan, & Mullan, 1981; Pearlin & Skaff, 1995). As we emphasize throughout this article, we regard the various social status characteristics of people as potentially influencing each of these core components. We begin our discussions by considering how our understanding of these components and their interrelationships can draw from life-course research. Following this, we turn to the other side of the synergistic relationship and examine the possible contributions of stress research to that of the life course.

In their chapter on the interconnections between stress and life-course issues, Elder, George, and Shanahan (1996) observe that research into stress has generally been conducted in a life-course vacuum. We agree; and we would add that when the life course is ignored it becomes more difficult to detect the changing configurations of stressors that so importantly drive the stress process. As we shall describe, the life course serves as a rich background for observing and making sense of the kinds of stressors to which people are likely to be exposed and the moderating resources they are able to bring to bear. Our discussion of these issues will emphasize that part of the life course involving middle and late life.

The Life Course and the Changing Landscape of Stressors

In considering how the universe of stressors may change with aging and the life course, it is useful to shed any prior assumption that aging itself is stressful or that old age is difficult because of the inevitable decline in health and vigor. Although risks to health do increase with advancing age, there is essentially no empirical support for the notion that stress is an inescapable consequence of movement toward the upper end of the life course (Baltes & Baltes, 1990; Gatz & Hurwitz, 1990; Ryff, 1989). However, although sheer exposure to stressors may not increase, the nature and quality of the stressors to which people are exposed may change with age.

Eventful Stressors. — In this regard, there is some indication that the occurrence of eventful stressors may diminish as people pass mid-life and enter older age (Dean & Ensel, 1982; Ensel, 1991; Murrell, Norris, & Grote, 1988). A poignant commentary on the relatively event-free lives of old people is the finding that the event most frequently mentioned in a survey of elders was a trip out of town (Murrell, Norris, & Hutchins, 1984). However, because inventories of life events tend to contain events most likely to erupt in the early stages than the late stages of adulthood, we cannot be certain that older people are less exposed than younger people to eventful stressors. That is, the inventories have a heavy representation of such events as being married, being divorced, having disruptive conflicts, having children, changing or losing jobs, having problems with the law, or other events most commonly experienced by the

young. The organization of older people's lives probably does expose them to fewer eventful stressors, but it should be recognized that inventories tend to oversample events most likely to occur in young adulthood and, perhaps, to overlook those likely to surface later.

Contrary to the thinking of Selye (1956) and his earlier followers, it is now known that life-change prompted by events is not necessarily harmful to well-being (e.g., Chiraboga, Catron, & Associates, 1991). Generally, adverse effects are observed only as a consequence of events that are undesired and unexpected or unscheduled (Pearlin, 1980). By contrast, many scheduled life-course transitions, such as marriage, having children, entering the labor force, retirement, the emptying of the nest, and the advent of grandparenthood are quite benign (George, 1980). Despite the dramatic life-changes and, presumably, the disruption of homeostasis they often entail, scheduled life-course transitional events typically do not have adverse effects. From a life-course perspective, this can hardly be viewed as surprising; indeed, it would be much more surprising if events that are reflective of normative aging were a cause of problems to individuals or to the larger society.

Although aging might restructure lives in ways that expose people to fewer deleterious events, this should not be taken to mean that older people are somehow protected from such events. On the contrary, *there are at least two kinds of eventful stressors whose incidence is more common with advancing age.* One involves the onset of illness and/or physical impairments. Moreover, when this type of event does occur, it is more likely to produce depression in older than in younger people (Ensell, 1991; Murrell et al., 1988). However, before accepting this observation as definitive, another possibility needs to be recognized. It concerns the proliferation of stressors, such that the health event is converted into other and more enduring hardships that better explain depression than the initial event. For example, breaking a hip may lead to financial strains, and both stressors then contribute to depression. Thus, some caution is necessary to avoid attributing effects to a primary stressor that are more accurately explained by proliferated secondary stressors.

Another event whose frequency occurs with age is the death of loved ones, particularly of generational peers. There is some evidence that the negative impact of the loss of friends and kin falls especially hard on women (Holahan, Holahan, & Belk, 1984; Kessler & McLeod, 1984). Where the death of a spouse is involved, however, loss seems to affect surviving men and women alike (Gallagher, Breckenridge, Thompson, & Peterson, 1983; Lund, Caserta, & Diamond, 1989), with depression typically lasting for a period of about 6 months for both widows and widowers (Mullan, 1992).

Aside from loss events, older people may, in general, be deeply affected by untoward events that occur in the lives of others to whom they are close. These kinds of events, which Aldwin (1990) refers to as "nonegocentric" events, may involve such event-

ful adversities as injury to a child, the breakup of a grandchild's marriage, or an involuntary job loss by a family member. Older family members are very vulnerable to the pains caused by such events occurring to others (Lowenthal, Thurnher, & Chiriboga, 1975).

A final observation concerns the *timing and clarity* of the changing array of eventful stressors to which people may be exposed as they traverse the life course. As noted above, there are transitions into and out of institutional roles and statuses across the breadth of the adult life course, with entrances being more common among younger people and exits among the older. Apparently there can be considerable variation among economic, ethnic, and gender groups with respect to the points along the life course at which these transitions occur. For example, research findings indicate that certain transitional events may be accelerated among racial and ethnic groups (Berresi, 1987; Gelfand, 1994; Gibson, 1987). Thus, because members of minority groups are frequently outside the mainstreams of occupational life, retirement often comes at a relatively early age. Of course, the definition and meaning of retirement may also differ according to whether or not people have been occupationally marginalized. Thus, where work history has been spotty and marked by episodes of unemployment, it may not be clear either to such individuals or to outside observers whether the individuals are retired or awaiting a reentry opportunity. As Gibson (1987) has noted, the "unretired retired" may continue to work sporadically as they enter the ranks of the old.

In addition to employment status, the timing and clarity of transitions involving family roles may also vary with people's social and economic characteristics. Thus, the comparatively early advent of parenthood in low-income and some minority groups can, in turn, result in an empty nest and a transition to grandparenthood at a relatively young age. Where grandparents are cast in the role of substitute parents, moreover, there is some functional ambiguity as to whether one has actually made the transition to being a grandparent, an ambiguity that possibly interferes with other normative transitions (Minkler & Roe, 1993).

Chronic Stressors. — Whatever the event and whoever might experience it, there is the distinct possibility that it will give rise to and become part of a larger cluster of secondary stressors. At least some of these secondary stressors are likely to be in the form of chronic hardships and problems, those that arise more insidiously and that are more persistent than eruptive events. Among the chronic stressors we have distinguished are *ambient*, *role*, and *quotidian* strains. Just as in the case of eventful stressors, the likelihood of the appearance of each of these in the lives of people is influenced by their locations on the life course.

Ambient strains are those that tend to arise out of person-environment interactions. From our aforementioned qualitative interviews, it appears that older people may become increasingly wary of the

quality of their community and neighborhood environments. Thus, they may find reason to be apprehensive about their safety, even in the objective absence of increased dangers. A keener sense of their own encroaching frailties and the movement of familiar faces out of the neighborhood and their replacement by strangers can heighten feelings of vulnerability. This may particularly be the case where those who left the community were members of the networks of those who remained behind. These vulnerabilities are not confined to those who remain in the neighborhoods, of course; in fact, they may be exacerbated by one's own relocation to a new setting.

Beyond threats to their security and safety, as people age they are more likely to experience the loss of "the good old days," perhaps even when the old days were not so good. Thus, a decline in the physical condition of their neighborhood can lead people to feel that they are inescapably bound to deteriorating surroundings, inviting the speculation that they see in such surroundings evidence of their own decline. Still other sources of ambient strains stem from shortcomings in the availability of transportation, shops and markets, physicians and medical care, recreational facilities, and other amenities. Increasingly with age, the absence of ready access to these kinds of facilities and services becomes problematic.

Whereas ambient strains arise out of conditions experienced in the proximal environments, *role strains* are traced to institutional roles, the family and its interpersonal relationships being prominent in this regard. There is a substantial potential for conflict within families, reflecting the complexity of expectations and obligations, their intense emotional attachments, and their exchange of support (Pearlin & McCall, 1990). Conflicts involving family members are typically resolved shortly after flare-up, but occasionally they arise early and continue to smolder across the entirety of the life course. Given the central importance of the family, conflicts among its members — regardless of how long they persist — can be a source of severe distress (Semple, 1992).

Some of these conflicts reach across generations at a time when children are well into adulthood and at a stage where their developmental trajectories are crystallized in the eyes of their aging parents. For some parents, this means that they must face up to the disparities between the aspirations that they once held for their children and the realities of the children's lives (Ryff, Lee, Essex, & Schmutte, 1994). These disparities can revolve around a number of issues, including financial success, life-style patterns, the ways that grandchildren are being raised, religious practices, and so on. Sharpening the pain of such disappointments, perhaps, is the realization that there is nothing the parents can do to change the situation. This may help to explain the observed tendency of people in late life to step back from intense involvement in family affairs and to become more involved with their own immediate lives (McCarthy, 1994; Neugarten, 1977).

Two additional chronic strains whose frequency may increase with age concern health and financial

problems. Strictly defined, these are not role strains since they transcend role boundaries; indeed, they may more accurately be thought of as status strains. However, they are certainly related to role strains, for they can disruptively intrude on the ways in which people are able to enact their roles. Because the consequences of both health problems and economic hardships can reach into virtually all corners of people's lives, they often stand as clear examples of stress proliferation.

Caregiving as an emergent role in middle and late life deserves special attention. We have described caregiving as an "unexpected career" (Aneshensel, Pearlin, Mullan, Zarit, & Whitlatch, 1995; Pearlin & Aneshensel, 1994) to underscore the fact that despite its being a common experience, it is not one that people typically build into the expectations for their own future life course. The very fact that it entails circumstances for which people are unprepared may itself be a source of distress, but once launched into caregiving, people may find themselves engulfed by the role (Skaiff & Pearlin, 1992).

Our research into caregiving to close relatives with Alzheimer's disease also reveals that this is a role capable of leading to a cascade of secondary stressors (Pearlin, Mullan, Semple, & Skaiff, 1990). Thus, the demands of satisfying the dependencies of the impaired person, the need to monitor behavior, and being witness to the cognitive transformation of the loved one can produce feelings of overload, role captivity, and the sense of loss. These feelings, in turn, are associated with family conflicts (Semple, 1992), with conflicts between caregiving and outside employment, and with intrapsychic conflicts, such as caregivers' sense that their former identities are fading (Pearlin, Aneshensel, Mullan, & Whitlatch, 1995; Skaiff, 1990). These secondary stressors, once they are established, can exert their own independent deleterious effects.

Although a great deal has been learned about caregivers, little is known of what it is to be a care recipient and the stressors that accompany that status. Yet, being dependent on the care provided by others, and the stressors that attend this kind of dependency are every bit as tied to the life course as being a caregiver. Indeed, people can build into their projected life-course trajectories the realistic and expanding possibility of becoming a care recipient as they approach the ranks of the oldest old.

Quotidian Stressors. — A final type of stressor to which exposure varies with the life course is what we refer to as "quotidian." We use this term to emphasize the fact that encounters with these kinds of stressors take place under the ordinary circumstances of daily life. Whereas ambient stressors are anchored in environmental circumstances, and role strains stem from experiences one has as an incumbent of major social roles, quotidian stressors arise from the context of one's micro-environment. As illuminated by studies of the community-dwelling oldest old (Barer, 1993), quotidian stressors con-

cretely refer to the hardships that are experienced in satisfying the logistical requirements of daily life.

By definition, quotidian stressors are rather prosaic, overlapping somewhat with what others call "hassles" (Folkman, Lazarus, Pimley, & Novacek, 1987). As we think of them, they are closely related to physical capacities and, therefore, exposure to them typically begins in young-old age and accelerates with the approach of old-old age. They potentially include a broad range of hardships, such as climbing stairs, reaching over to remove food from the refrigerator, reading fine print, boarding a bus, changing a light bulb, and on and on. For people free of frailties, these kinds of activities hardly come into consciousness; but for those burdened by physical limitations, they can emerge as the outstanding challenges of daily life.

The Bearing of Life-Course Perspectives on Moderating Resources

A virtual certain finding of all research into stress is that people exposed to the same stressor are not necessarily affected by it in the same way. At the extremes, a stressor might severely distress one person and leave another undisturbed. Such variability is in part explained by the fact that people who are exposed to the same stressor may also be exposed to very different configurations of primary and secondary stressors. But at least part of the explanation may also lie with differences in access to and use of moderating resources: *coping repertoires*, *social support*, and *mastery*. These are among the principal resources known to deflect or ease the deleterious outcomes of stressors.

Just as exposure to stressors varies with location on the life course, we also believe this to be the case for the availability and effective use of resources. We shall first examine coping behavior and then, in turn, consider social support and mastery. In each case, our discussions are limited to but a few of the outstanding questions and issues.

Coping. — We are in agreement with Kahana (1992) that coping behavior should be treated as the evolving and selective use of adaptive skills as one moves across the life course. In this regard, it appears to us that the kinds of problems one encounters with this movement become increasingly, albeit not completely, intractable and resistant to problem solving (Folkman et al., 1987). Consistent with this observation, it is our impression that *people tend increasingly to rely on the management of meaning of difficult situations* rather than the management or change of the situations themselves (Heckhausen & Schulz, 1995; Lerner & Gignac, 1992).

Meaning is not necessarily the exclusive product of one's unique cognitive manipulations. In part, it is shaped by the values the person holds as a consequence of social group membership. In one family, for example, a child's high school diploma means that the child is ready for a transition into the labor force to provide some relief from the economic bur-

dens of the household; in another family, the same diploma means that the child is ready for a transition to college, where she/he will require continued support. Similarly, meaning is shaped in part by the life-course context of problematic circumstances. A 35-year-old major league pitcher whose services are no longer wanted will have some recognition, however mixed with disappointment it might be, that his career has come to a natural end. By contrast, the college professor of the same age who does not earn tenure will see his career as prematurely at risk.

Values and context aside, meaning is commonly managed — consciously or not — by two types of coping strategies. One involves the use of others who are at similar positions on the life course as significant reference figures. This is a familiar response to stressors, essentially involving the positive comparison of one's self with age peers. Thus, people in middle and late life frequently follow a description of their problems with a comment such as "... but that's how it is for people my age." People's pain seems to be eased when they can identify with someone they know whom they judge to be in worse circumstances. Somehow, one's own shoes pinch less tightly when it appears that it would hurt even more to be in those of another.

A second meaning-shaping strategy associated with movement along the life course concerns the shifting of priorities to fit the changing realities of life. Problems arising around domains of activities, relationships, or commitments that are of central importance are likely to have a more severe impact than problems located in areas of lesser importance (Krause, 1994). As a way to minimize the effects of problems, therefore, a domain which one finds particularly problematic may be moved to a lower place in the order of priorities. These kinds of shifts are an accommodation to the constraints and hardships posed by the aging process (Brandtstadter & Baltes-Gotz, 1990). As with other meaning-shaping behavior, it does not eliminate problems but can serve to render them less onerous.

Social Support. — It is evident that as people traverse the life course there may be a realignment of the social relationships from which they can draw support. This is especially apparent, of course, as people enter the upper portions of their trajectories. Adopting the compelling metaphor of the convoy (Kahn & Antonucci, 1980), we must conclude that as people age they stand an increasing chance of seeing the fleet shrink. However, this does not mean that late-life survivors must eventually be bereft of support. In their study of the oldest old, Johnson and her colleagues (Johnson & Barer, 1992; Johnson & Troll, 1994) found that nearly half their sample had made new friends since the age of 85. However, although replacement may slow or prevent the complete loss of network, some loss is likely. When it does occur, it can represent both a stressor condition and an attrition of an important moderating resource.

There is no doubt that social support is a resource in protecting people's well-being, and it may be

particularly critical in facing problems resistant to individual coping efforts (Hansson & Carpenter, 1994). Yet, the effectiveness of social support depends on a number of conditions. Thus, it is known that the forms and sources of support need to fit appropriately with the types of problems confronting individuals (Pearlin et al., 1995). For example, there are exigencies that might be moderated either by emotional support or by instrumental support, but not by both. Similarly, support provided by informal sources may be most effective in dealing with some problems, but formal sources with others. Thus, there are emerging indications that the moderation efficacy of social support in confronting a particular hardship is regulated by the forms of the support, its sources, and the quality of the relationships between the donor and recipient of the support (Jackson & Antonucci, 1992).

Mastery. — The final resource we consider is *mastery*, a global sense of control that has repeatedly been shown to contribute to well-being (e.g., Cohen & Edwards, 1989; Rodin, 1986; Ryff, 1989; Skaff, Pearlin, & Mullan, in press). Like coping and social support, mastery has a dual part in the stress process in that it both regulates the impact of stressors and may be elevated or lowered by exposure to stressor conditions (Mullan, 1992; Skaff & Pearlin, 1994). However, even in the face of dealing with prolonged hardships that would seem to defy one's sense of control, as in Alzheimer's caregiving, mastery may be sustained. Evidence from our research indicates that social support may function to maintain the level of mastery in such situations, and it appears that economic resources and education are also stabilizing factors.

Contrary to any assumptions that advancement along the life course is by itself inimical to the sense of control, our qualitative interviews indicate that old people are able to maintain a high level of mastery in the face of objectively difficult life circumstances. Two mechanisms seem to help in this regard, both involving the selective use of evidence confirming this self-concept. Thus, past experience may be retrieved in a way that functions for the present; that is, people may scan their own histories to recount occasions where they were able to overcome hardships that had challenged them. Their success in controlling past adversities is interpreted as evidence of their competence in mastering current adversities. Second, the shifting of priorities apparently functions to maintain a sense of control in late life, just as it functions to shape the meaning of stressors in a congenial manner. In the case of mastery, domains of life over which people have lost a measure of control are moved out of a position of centrality and are replaced by those over which control is still exercised, such as balancing a checkbook. From the perspective of the observer, this kind of priority may seem to take up limited life space, but to the aging person it stands as salient evidence of continuing mastery.

The Life Course and Stress Outcomes

Whereas an awareness of life-course issues helps to identify and discern changes in the types of stressors to which people are exposed and in their access to and use of moderating resources, we believe life-course perspectives have shed less light on *outcomes*, the final major component of the stress process. To some extent, this results from life-course and stress research historically focusing on very different outcomes. Thus, life-course research is more oriented to such constructs as life satisfaction, successful aging, and competence (Clausen, 1993), and stress research to indicators of mental disorder and ill health.

Some of the possible relevance of the life course to outcomes, however, is just beginning to be explored. For example, Ryff's (1989) recent efforts to identify components of psychological well-being in adulthood and late life has promising implications in this regard. Likewise, a life-course perspective can sensitize stress researchers to age differences in the incidence of typical stress outcomes such as depression and physical illness. Nevertheless, we make the provisional observation that the contributions of a life-course perspective to the identification of outcomes is more limited than its contributions to the recognition of stressors and resources.

Contributions of Stress Process Perspectives. — We now ask the reverse question: How can the perspectives of the stress process inform life-course research? Because the development of the two fields has been somewhat intellectually segregated, even the most seminal of life-course researchers has not fully considered issues of stress in explaining life-course trajectories. For example, Baltes (1982) distinguishes normative and non-normative transitions as developmental forces but overlooks the many potentially stressful conditions other than these life events that can exert influence on life-course trajectories.

Some of the outstanding research that has helped to define the character of life-course research has relied on long-term studies that were originally designed for other purposes (e.g., Elder, 1974). Although these studies provided readymade data and the opportunity to track individuals over an extended portion of their lives, they understandably did not fully lend themselves to the theoretical issues of social stress that emerged decades later. This is not a criticism of the inquiries relying on secondary analyses; on the contrary, some of these inquiries stand as testimony to the vision and ingenuity of those who have helped to delineate the field while drawing on data that could not systematically assess stressful experiences. Although the reliance on secondary data does not seem to have hindered the conceptual development of the life-course field, it has left a number of empirical gaps. We believe that some of these gaps can be narrowed by recognizing that life-course trajectories may be shaped by the dynamic process in which stressors, resources, and outcomes converge on the lives of people.

Although we, like others, use the metaphor of a trajectory in referring to the life course, it is not one that should be taken literally. A trajectory, like a ballistic missile, is propelled by some explosive force that sends it on its way in some straight or arching track. By contrast, the life course most typically approximates a pattern of forward movements, pauses, loops, and shifts in directions. Some of the explanations of these patterns lie with the changes and variations of stress and its processes. To illustrate this assertion, we have chosen to focus on two specific themes of life-course research: the importance of historical cohorts and the timing and sequencing of transitional events.

The Experiential Underpinnings of Historical Cohorts

One of the signal features of life-course research is the understanding that the entirety of people's lives is shaped by the historical contexts in which they are born and through which they age. Because historical conditions change, and because newly emerging conditions impinge on successive cohorts at different ages, each cohort is thus somewhat different from those that preceded it and from those that follow. These kinds of differences, in turn, can lead to differences in beliefs, values, outlooks, and life-course trajectories. The notion of cohort is certainly sound, and it seems to be mirrored in the kinds of differences everyone has had occasion to observe, from manners to mores.

However, there is a key question that is still unanswered, one raised by Rosow (1978) some years ago: What makes a cohort a cohort? In his landmark work, Elder (1974) deals with this question by selecting cohorts that leave little doubt about the epochal circumstances that make them a cohort: one whose formative years occurred at the time of the Great Depression and another who were young adults who served in World War II.

By and large, however, we are not as good as we need to be in identifying important historical conditions that are less dramatic. Is growing up as part of a population bubble different from growing up as part of a plateauing population? What are the life-course consequences for those entering the labor force in an era when one is expected to exceed the achievements of the parental generation as compared to entry when there is normative doubt that parental status can be matched, let alone exceeded? We raise these questions not to propose that they need to be pursued but to illustrate the subtleties of recognizing what it is about a cohort that makes it a cohort.

We know little, either, of how historic conditions, subtle or dramatic, enter the experience of individuals. The search for relevant experience is formidable under any circumstance but is made even more complicated by the fact that there is no reason to expect that members of the same cohort will share the same experiences or share them with the same intensity. Thus, there can be much intracohort variation created by the interaction of historical condi-

tions with the socioeconomic characteristics of people in the cohort (Dannefer, 1984). A compelling illustration of such variation is reflected in Elder's (1974) findings that the Great Depression fell harder on the shoulders of people with limited economic resources and job skills than on their counterparts. These kinds of findings serve as models for identifying the patterns of significant experience and their variation that go with being part of a cohort.

We can ponder what information we would gather if we were in the fanciful position of designing a study that would extend through the next 40 or 50 years and whose purpose was to observe cohort effects on the life course. The planning would probably benefit from the participation of historians, demographers, economists, life-course researchers, and anyone else clever enough to foresee the emergence of important conditions of life, to follow their dynamic and changing connections to eventful and enduring stressors, to observe the moderating resources to which people have access and the ways they employ these resources in responding to the stressors confronting them, and to gauge the long-term consequences of the process. It is our impression that often we are merely reminded that cohort conditions are critically important to understanding the life course, without cues as to what these conditions are, what groups within the cohort might be particularly exposed to the conditions, and what the long-run effects are on the unfolding of life-course trajectories. We believe that the perspectives of the stress process can help to fill these gaps.

The Timing and Sequencing of Transitions

Among the themes identified by Elder et al. (1996) as distinctive of the life-course research paradigm are the timing and sequencing of events. The effects of timing revolve around the point in the life course at which a transition event occurs. Thus, being called for wartime military service at age 18 is likely to set in motion life-course consequences different from those created by entering service at age 28. There has been some speculation that the "on time" or "off time" occurrence of transitions also makes a difference. This speculation has arisen out of the observation that there are social norms defining the best time for scheduled events to surface (Neugarten & Datan, 1973). Thus, there is a best time to get married, to have children, and so on. Looking at our own unpublished data bearing on this aspect of timing, we find that there indeed is remarkable consensus concerning the best age for these kinds of transitional events but we find no clear indication that departure from the norms has negative effects on individuals. The only well-known event we are familiar with whose impact may be exacerbated by its off-time character is the deaths of young people with AIDS and the grief reactions to these premature losses (Pearlin, Mullan, Aneshensel, Wardlaw, & Harrington, 1994).

It is likely that the effects of timing largely depend on the extent to which they constrain the organiza-

tion of trajectories. Thus, the person who enters military life at 28 and returns to civilian life at 31 might never be able to compensate for the three years in which his occupational life was in abeyance. By contrast, the 18-year-old conscript who later enters the labor force at 21 might more easily create an undisturbed family and work life. As Elder emphasizes, the significance of the timing of transitional events depends on how integrated or discontinuous they are with the organization of one's multiple trajectories.

This is probably even more true in the case of the sequencing of transitional events. For illustration, the person who sequentially finished high school, entered the labor force, married, and then had children will probably have a far easier life than the person who reversed the order by first having children (Hogan, 1978). The first sequence is easier not because it conforms to a divine plan but because each transition eases the succeeding transition; under most circumstances, it represents a serial organization of transitions that is more functionally suited to the preparation for and enactment of later roles. Stated another way, the sequencing of transitions can be judged by the scope and intensity of chronic strains to which they lead in future roles.

In drawing attention to historic cohorts and issues of timing and sequencing, we wish to underscore that despite differences in the language of concepts, there are potential areas of convergence that can be achieved by applying some of the explanatory framework of the stress process to the themes of life-course research. Just as an awareness of the life course can sensitize us to the changing configurations of stressors and moderating resources, an awareness of these kinds of changes can help us interpret the directions and substance of people's trajectories within major institutional domains.

Outcomes in Life-Course Research

The outcomes that are examined in stress research are probably more standardized than those found in life-course research. Where the former typically employs indicators of mental and physical health, life-course research considers a variety of outcomes, ranging from personality dispositions (Clausen, 1993) to parental disciplinary styles in child rearing (Elder, 1974). The two outcomes on which we focus our discussion are successful aging and life satisfaction. Although they are more closely identified with gerontology in general than with life-course research in particular, they deserve brief comment.

Successful aging pertains to maximizing the health behavior and the productive economic and social activities of individuals (Leonard, 1982; Rowe & Kahn, 1987). By and large, attention to successful aging has centered on the criteria by which it is evaluated, paying less attention to the life-course conditions that retard or enhance it (Baltes & Baltes, 1990; Featherman, Smith, & Peters, 1990). As it is treated, the notion of successful aging suggests that it is encased in a set of static endpoints, such as good health and self-satisfaction. These states make more

sense as desired goals than as fixed ends. That is, the construct is more suitably regarded as a dynamic process in which individuals repeatedly face challenges as they interact with their changing environments (Featherman et al., 1990; George, 1987). As the construct is often presented, however, it could more appropriately be termed "the successful aged" than successful aging.

In contemplating conditions underlying successful aging, it would do well to begin by recognizing that successful aging depends foremost on a successful society. For example, societies in which there is considerable "structural lag," i.e., disparity between opportunity structures and the needs and desires of older people (Riley, Kahn, & Foner, 1994), are likely to constrict the number of successfully aging individuals. To capture successful aging as a life-course process, it is also necessary to take into account the changing array of stressors and resources accompanying people as they advance through the age ranks (Wong, 1989).

Some of the same observations can be applied to the notion of life satisfaction. Here, too, more effort has been devoted to its measurement than to the conditions that support or undermine it. The criteria on which people base their satisfaction or dissatisfaction also tend to be ambiguous, an ambiguity accentuated by the fact that people simultaneously report symptoms of psychological disorder or ill health and satisfaction with their lives (Baltes & Baltes, 1990). This prompts one to wonder whether satisfaction is anchored in past circumstances, on those that are current, or on circumstances thought to be expected at advanced age. Most salient, life satisfaction, as in the case of successful aging, would take on a richer meaning if it were treated in the context of dynamic challenge and change across the life course. It is a less useful construct when studied in isolation of the demanding conditions to which people must adapt or the adaptive resources available to them.

Discussion

Given the fact that research into the stress process and the life course are both fairly skeletal, it may appear chimerical to argue, as we have done, that each can put some meat on the bones of the other. However, their synergism is supported by a number of shared key orientations. One is their mutual concern with change through time and the effort to understand lives in terms of their dynamic organization and reorganization across time. Each, too, assumes that the conditions people experience at earlier points of their lives may affect the outcomes that can be observed at later points. Not only are the various facets of people's lives interconnected within time but also through time.

The two fields also converge in the importance they attach to social structural factors. Life-course research, particularly as articulated by Elder (1974) and Dannefer (1984, 1987), highlights intracohort variations that emerge as a result of the interactions between historical conditions and the location of

people in the structural arrangement of the larger society. It is placement within these structural arrangements that helps to account for differences in the impact of epochal historical upheavals on evolving patterns of development and aging. For its part, research into social stress regards people's locations in surrounding social and institutional structures as pivotal to the components of the stress process and their interrelationships.

Behind these common concerns are different strengths and weaknesses in the current state of the two fields. However, as we have described, there is a complementarity in their differences, such that stress research can help to plug some of the empirical and explanatory gaps in life-course research, and research into the life course draws attention to the shifts in the components of the stress process and their interrelationships as people age.

We have largely ignored the monumental methodological hurdles involved in doing long-term research that would incorporate the strengths of the two lines of research. Particularly challenging are the problems that seem inevitable to arise in research that stretches across a span of several years. We refer specifically to conceptual and analytic obsolescence, a problem whose growth seems to be accelerated as the years covered by the work increase. As Hendricks (1992) has observed, eventually there may be multiple generations of researchers involved, each constituting a unique intellectual cohort influenced by historic times. As fields of inquiry develop and mature, the salient issues may be redefined and revised, along with the measurement tools and analytic strategies available to address the issues. Yet, this is a problem worth facing. It is difficult to imagine that either field could flourish in the absence of long-term studies that test and nurture our foresight and creativity.

References

- Aldwin, C. M. (1990). The elders life stress inventory: Egocentric and nonegocentric stress. In M. A. P. Stephens, J. H. Crowther, S. E. Hobfoll, & D. L. Tennenbaum (Eds.), *Stress and coping in later-life families* (pp. 49–69). New York: Hemisphere.
- Aneshensel, C. S., Pearlin, L. I., Mullan, J. T., Zarit, S. H., & Whitlatch, C. J. (1995). *Profiles in caregiving: The unexpected career*. San Diego, CA: Academic Press.
- Baltes, P. B. (1982). Life-span developmental psychology: Some converging observations on history and theory. In K. W. Schaie & J. Geiwitz (Eds.), *Readings in adult development and aging* (pp. 12–25). Boston: Little, Brown.
- Baltes, P. B., & Baltes, M. M. (1990). Psychological perspectives on successful aging: The model of selective optimization with compensation. In P. B. Baltes & M. M. Baltes (Eds.), *Successful aging: Perspectives from the behavioral sciences* (pp. 1–34). Cambridge, UK: Cambridge University Press.
- Barer, B. M. (1993). Stressors in late life: Does race make a difference? Paper presented at the Annual Meeting of The Gerontological Society of America, New Orleans, LA.
- Barresi, C. M. (1987). Ethnic aging and the life course. In D. E. Gelfand & C. M. Barresi (Eds.), *Ethnic dimensions of aging* (pp. 18–34). New York: Springer.
- Brandstadter, J., & Baltes-Gotz, B. (1990). Personal control over development and quality of life perspectives in adulthood. In P. B. Baltes & M. M. Baltes (Eds.), *Successful aging: Perspectives from the behavioral sciences* (pp. 197–224). Cambridge, UK: Cambridge University Press.
- Chiriboga, D. A., Catron, L. S., & Associates. (1991). *Divorce: Crisis, challenge, or relief?* New York: University Press.
- Clausen, J. (1993). *American lives: Looking back at children of the Great Depression*. New York: Free Press.

- Cohen, S., & Edwards, J. R. (1989). Personality characteristics as moderators of the relationship between stress and disorder. In R. W. T. Neufeld (Ed.), *Advances in the investigation of psychological stress* (pp. 235–283). New York: Wiley & Sons.
- Costa, P. T., & McCrae, R. R. (1989). Personality continuity and the changes of adult life. In M. Storandt & G. R. VandenBos (Eds.), *The adult years: Continuity and change* (pp. 45–77). Washington DC: APA.
- Dannefer, D. (1984). Adult development and social theory: A paradigmatic reappraisal. *American Sociological Review*, 49, 100–116.
- Dannefer, D. (1987). Aging as intracohort differentiation: Accentuation, the Matthew Effect and the life course. *Sociological Forum*, 2, 211–236.
- Dean, A., & Ensel, W. M. (1982). Modeling social support, life events, competence, and depression in the context of age and sex. *Journal of Community Psychology*, 10, 392–408.
- Elder, G. H., Jr. (1974). *Children of the Great Depression: Social change in life experience*. Chicago: University of Chicago.
- Elder, G. H., George, L. K., & Shanahan, M. G. (1996). Psychosocial stress over the life course. In H. Kaplan (Ed.), *Perspectives on psychosocial stress*. (pp. 245–290). San Diego, CA: Academic Press.
- Ensel, W. M. (1991). "Important" life events and depression among older adults. *Journal of Aging and Health*, 3, 546–566.
- Featherman, D. L., Smith, J., & Peters, J. G. (1990). Successful aging in a post-retired society. In P. B. Baltes & M. M. Baltes (Eds.), *Successful aging: Perspectives from the behavioral sciences* (pp. 50–93). Cambridge, UK: Cambridge University Press.
- Folkman, S., Lazarus, R. S., Pimley, S., & Novacek, J. (1987). Age differences in stress and coping. *Psychology and Aging*, 2, 171–184.
- Gallagher, D., Breckenridge, J., Thompson, L. W., & Peterson, J. (1983). Effects of bereavement on indicators of mental health in elderly widows and widowers. *Journal of Gerontology*, 38, 565–571.
- Gatz, M., & Hurwitz, M. (1990). Are old people more depressed? Cross-sectional data on Center for Epidemiological Studies depression scale factors. *Psychology and Aging*, 5(2), 284–290.
- Gelfand, D. E. (1994). *Aging and ethnicity: Knowledge and services*. New York: Springer.
- George, L. K. (1980). *Role transitions in later life*. Monterey, CA: Brooks/Cole.
- George, L. K. (1987). Adaptation. In G. L. Maddox (Ed.), *The encyclopedia of aging* (pp. 5–7). New York: Springer.
- Gibson, R. (1987). Defining retirement for Black Americans. In D. E. Gelfand & C. M. Barresi (Eds.), *Ethnic dimensions of aging* (pp. 224–238). New York: Springer.
- Hansson, R. O., & Carpenter, B. N. (1994). *Relationships in old age: Coping with the challenges of transition*. New York: Guilford Press.
- Heckhausen, J., & Schulz, R. (1995). A life-span theory of control. *Psychological Review*, 102, 284–304.
- Hendricks, J. (1992). Generations and the generation of theory in social gerontology. *International Journal of Aging and Human Development*, 35, 31–47.
- Hogan, D. (1978). The variable order of events in the life course. *American Sociological Review*, 43, 573–586.
- Holahan, C. K., Holahan, C. J., & Belk, S. S. (1984). Adjustment in aging: The roles of life stress, hassles, and self-efficacy. *Health Psychology*, 3, 315–328.
- Jackson, J. J., & Antonucci, T. C. (1992). Social support processes in health and effective functioning in the elderly. In M. L. Wykle, E. Kahana, & J. Kowal (Eds.), *Stress and health among the elderly* (pp. 72–95). New York: Springer.
- Johnson, C. L., & Barer, B. M. (1992). Patterns of engagement and disengagement among the oldest old. *Journal of Aging Studies*, 6, 351–364.
- Johnson, C. L., & Troll, L. E. (1994). Constraints and facilitators to friendships in late late life. *The Gerontologist*, 34, 79–87.
- Kahana, E. (1992). Stress research and aging: Complexities, ambiguities, paradoxes, and promise. In M. L. Wykle, E. Kahana, & J. Kowal (Eds.), *Stress and health among the elderly* (pp. 239–256). New York: Springer.
- Kahn, R. L., & Antonucci, T. C. (1980). Convoys over the life course: Attachment, roles, and social support. In P. B. Baltes & O. G. Brim (Eds.), *Life-span development and behavior*. New York: Academic Press.
- Kessler, R. C., & McLeod, J. D. (1984). Sex differences in vulnerability to undesirable life events. *American Sociological Review*, 49, 620–631.
- Krause, N. (1994). Stressors in salient social roles and well-being in later life. *Journal of Gerontology: Psychological Sciences*, 49, P137–P148.
- Leonard, W. M., II. (1982). Successful aging: An elaboration of social and psychological factors. *International Journal of Aging and Human Development*, 14, 223–232.
- Lerner, M. J., & Gignac, M. A. (1992). Is it coping or is it growth? A cognitive-affective model of contentment in the elderly. In L. Montada, S. Filipp, & M. J. Lerner (Eds.), *Life crises and experience of loss in adulthood* (pp. 321–337). Hillsdale, NJ: Erlbaum.
- Levinson, D. J. (1978). *Seasons of a man's life*. New York: Knopf.
- Lowenthal, M. F., Thurnher, M., & Chiriboga, D. A. (1975). *Four stages of life*. San Francisco: Jossey-Bass.
- Lund, D. A., Caserta, M. S., & Diamond, M. F. (1989). Impact of spousal bereavement on the subjective well-being of older adults. In D. A. Lund (Ed.), *Older bereaved spouses: Research with practical applications* (pp. 3–15). New York: Hemisphere.
- McCarthy, J. L. (1994). Effects of widowhood on role-related dimensions of satisfaction in midlife. Paper presented at the Annual Meeting of the Gerontological Society of America, Atlanta, GA.
- Minkler, M., & Roe, K. M. (1993). *Grandmothers as caregivers*. Newbury Park, CA: Sage.
- Mullan, J. T. (1992). The bereaved caregiver: A prospective study of changes in well-being. *The Gerontologist*, 32, 673–683.
- Murrell, S. A., Norris, F. H., & Grote, C. (1988). Life events in older adults. In L. H. Cohen (Ed.), *Life events and psychological functioning: Theoretical and methodological issues* (pp. 96–122). Newbury Park, CA: Sage.
- Murrell, S. A., Norris, F. H., & Hutchins, G. L. (1984). Distribution and desirability of life events in older adults: Population and policy implications. *Journal of Community Psychology*, 12, 301–311.
- Neugarten, B. L. (1977). Personality and aging. In J. E. Birren & K. W. Schaie (Eds.), *Handbook of the psychology of aging* (pp. 626–649). New York: Van Nostrand Reinhold.
- Neugarten, B. L., & Datan, N. (1973). Sociological perspectives on the life cycle. In P. B. Baltes & K. W. Schaie (Eds.), *Life span developmental psychology: Personality and socialization* (pp. 53–71). New York: Academic Press.
- Pearlin, L. I. (1980). Life strains and psychological distress among adults. A conceptual overview. In N. J. Smelser & E. H. Erikson (Eds.), *Themes of work and love in adulthood* (pp. 174–192). Cambridge, MA: Harvard University Press.
- Pearlin, L. I., & Aneshensel, C. S. (1994). Caregiving: The unexpected career. *Social Justice Research*, 7, 373–390.
- Pearlin, L. I., Aneshensel, C. S., Mullan, J. T., & Whitlatch, C. J. (1995). Caregiving and its social support. In R. Binstock & L. George (Eds.), *Handbook on aging and the social sciences*.
- Pearlin, L. I., Lieberman, M. A., Menaghan, E. G., & Mullan, J. T. (1981). The stress process. *Journal of Health and Social Behavior*, 22, 337–356.
- Pearlin, L. I., & McCall, M. E. (1990). Occupational stress and marital support: A description of microprocesses. In J. Eckenrode & S. Gore (Eds.), *Crossing the boundaries: The transmission of stress between work and family* (pp. 39–60). New York: Plenum.
- Pearlin, L. I., Mullan, J. T., Aneshensel, C. S., Wardlaw, L., & Harrington, C. (1994). The structure and functions of AIDS caregiving relationships. *Psychosocial Rehabilitation Journal*, 17(4), 51–67.
- Pearlin, L. I., Mullan, J. T., Semple, S. J., & Skaff, M. M. (1990). Caregiving and the stress process: An overview of concepts and their measures. *The Gerontologist*, 30, 583–594.
- Pearlin, L. I., & Skaff, M. M. (1995). Stressors and adaptation in late life. In Gatz, M. (Ed.), *Emerging issues in mental health and aging* (pp. 97–123).
- Riley, M. W., Kahn, R. L., & Foner, A. (Eds.). (1994). *Age and structural lag*. New York: Wiley & Sons.
- Rodin, J. (1986). Aging and health: Effects of the sense of control. *Science*, 233, 1271–1276.
- Rosow, I. (1978). What is a cohort and why? *Human Development*, 21, 65–75.
- Rowe, J. W., & Kahn, R. L. (1987). Human aging: Usual and successful. *Science*, 237, 143–149.
- Ryff, C. D. (1989). Beyond Ponce de Leon and life satisfaction. *International Journal of Behavioral Development*, 12, 35–55.
- Ryff, C. D., Lee, Y. H., Essex, M. J., & Schmutte, P. S. (1994). My children and me: Midlife evaluations of grown children and of self. *Psychology and Aging*, 9, 195–205.
- Selye, H. (1956). *The stress of life*. New York: McGraw-Hill.
- Semple, S. J. (1992). Conflict in Alzheimer's caregiving families: Its dimensions and consequences. *The Gerontologist*, 32, 648–655.
- Skaff, M. M. (1990). *Stress and the self: A study of caregiving and self-concept*. Unpublished doctoral dissertation, University of California, San Francisco, CA.
- Skaff, M. M., & Pearlin, L. I. (1992). Caregiving: Role engulfment and the loss of self. *The Gerontologist*, 32, 656–664.
- Skaff, M. M., Pearlin, L. I., & Mullan, J. T. (in press). Transitions in the caregiving career: Effects on sense of mastery. *Psychology and Aging*.
- Wong, P. P. (1989). Personal meaning and successful aging. *Canadian Psychology*, 30, 516–525.

Received September 17, 1995

Accepted October 6, 1995