The Life Course and the Stress Process: Some Conceptual Comparisons

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This paper compares the meanings and applications of concepts relevant to both the life course and the stress process frameworks. Some of these concepts bear the same labels but serve quite different scholarly agendas. Other concepts have different labels but have closely related applications. The purpose of this kind of comparative analysis is to help both fields clarify the conceptual tools needed to advance their scholarly goals.

Key Words: Conceptual specification—Life course paradigm—Stress process paradigm.

OUTSTANDING among the many contributions of Matilda Riley to the study of aging was her enrichment of its theoretical foundations (see Dannefer, Uhlenberg, Foner, & Abeles, 2005). On the occasion of the award that bears her name, therefore, it is entirely fitting to engage in what Merton (1968) many years ago referred to as conceptual analysis. The careful consideration and analysis of major concepts, perspectives, and research agendas is an ongoing requirement of any area of research, but especially in rapidly maturing fields whose interests overlap those of other fields and on which different disciplinary orientations converge. These are the conditions that can foster ambiguity and contradiction, such as the use of the same labels that essentially represent different concepts and, conversely, the employment of different labels that basically pertain to the same concepts.

However, as Merton (1968) also observed, a fresh look at our concepts and the meanings and uses we attach to them has implications that go beyond clearing up the confusions of language that might have emerged. A critical examination of important concepts can reveal the ambiguities and unquestioned assumptions that might underlie their use and, in so doing, contribute to a keener understanding of the larger theories of which the concepts are a part. In addition to providing greater theoretical clarification of the phenomena in which we are interested, conceptual analysis may also lead to a refinement of the research that is guided by the concepts. For example, it can help us to reconsider and improve the measures and other devices we employ to empirically assess our concepts. It may also help to reveal instances where disparate measures are employed to assess the same or closely similar concepts, a practice that can lead to competing findings and interpretations.

Whether intended or not, conceptual analysis is often conducted in the normal course of scholarly work. Our concepts come under unavoidable scrutiny as we think about the issues in which we are interested, as we plan our research, and as we seek reasonable interpretations of the

findings that emerge. In this paper, of course, the scrutiny is purposive. Moreover, it is largely done through the comparative examination of the conceptual components of the life course and stress process paradigms. Each provides a unique vantage point for considering the other, the life course from the perspectives of the stress process and the stress process from those of the life course. It can be recognized, however, that comparisons across specialty areas are susceptible to selective bias. I assume that if either the life course framework or that of the stress process were viewed from different vantage points, similarities and differences would come into focus.

It also deserves to be underscored that meaningful comparisons between the two scholarly domains can be drawn only when some intellectual kinship exists between them, that is, where the work of one is relevant to the thinking about the other. Such kinship can be found among multiple areas of study within sociology; indeed, the vast expansion of specialties within the discipline in past decades has nurtured the scope of their interfaces. It can be accurately asserted that with the multiplication of specialty areas, there has been a corresponding increase in shared interests and orientations among them. As I attempt to show, this is certainly the case with the life course and stress process paradigms.

Prominent among their shared interests is that of continuity and discontinuity through time, that is, the stability or change in the circumstances and directions of people's lives as they age and, similarly, the stability and change of conditions affecting their well-being. This certainly is at the basis of my adoption of life course perspectives many years ago. It was less a deliberate choice than an inescapable recognition that the complex relationships between the various components of the stress process are established over a considerable span of time. Stress that is rooted in social and experiential conditions typically cannot be fully understood as a happening, as in an immediate response to a stimulus. It is partly because the relationships between well-being and its social

antecedents evolve over time that we speak of the sources and consequences of stress as being embedded in a process. In addressing their core interests in continuity and change, both fields have borrowed or developed a variety of concepts, some of them unique to each field and some similar to both. As I describe subsequently, even those that are similar may have taken on different nuances, labels, and agendas.

Although there is a general consensus concerning the conceptual components of each of the fields, there is less agreement among life course scholars as to whether the framework represents a theory (Elder, 1998), a set of perspectives (George, 1999), or a phenomenon (Dannefer, 2003). Despite there being a reasonable basis for each of these descriptors, here I shall treat the life course primarily as a framework whose array of concepts alerts us to the changes and continuities of people's lives. Moreover, though scholars over the years have conducted seminal empirical research that has given impetus and direction to the development of life course sociology (e.g., Elder, 1974), its importance is not solely the result of being itself a field of research. Instead, its value also stems substantially from the guidance it provides to inquiries conducted by those located within other fields. Studies launched from multiple specialty areas, such as criminology, demography, and status attainment, have either implicitly or explicitly adopted some of the perspectives of the life course framework. As I have indicated earlier, this has certainly been the case of the sociology of stress in its effort to identify some of the antecedents of systemic disparities in health and well-being.

THE COMPONENTS OF THE LIFE COURSE AND STRESS PROCESS FRAMEWORKS

A brief overview of the principal components of the life course and stress process frameworks can provide some background for a closer and more detailed examination of their overlapping and distinctive features. Considering first life course sociology and its conceptual underpinnings, probably no concept is more instrumentally central than the notion of transitions, which usually refers to the movement into and exit from various institutional roles and statuses (see Ferraro, 2001). Closely tied to transitions is a pair of additional concepts: timing and sequencing. Among those making a transition, not everyone makes it at the same age or point of the life course, and variations in the timing of transitions may be relevant to the directions they impose on the life course. The same is true of the sequencing of the transition, which refers to whether it precedes or follows other transitions. Transitions, together with their timing and sequencing, shape life course trajectories, the patterns of change and continuity of people's lives within the multiple, social, and economic institutions of the society. The notion of trajectory is also extended occasionally to include change in the health status of people as they age (e.g., Meadows, McLanahan, & Brooks-Gunn, 2008).

Also among the conceptual foundations of the life course framework is "agency," an important notion referring to the decisions and actions taken by people in controlling and directing their own life course trajectories. The concept implies that individuals can be agents serving on behalf of their own interests, steering their lives toward the fulfillment of their values and goals. Still another concept is that of linked lives, which calls attention to the fact that people do not live in a social vacuum but, instead, are typically embedded in social networks composed of many types of relationships, some formal and others informal, some involving close ties and others loose. As a consequence of these ties, the conditions and actions that initiate and give form to one individual's life course trajectories may set in motion reciprocal effects between the individual and some of those with whom she or he has social relationships. Finally, an overview of the panoply of concepts should also include the notion of "cohort," which calls attention to the large-scale social and economic changes that might emerge within a historical era and that are capable of stamping different age groups with a historically distinct set of experiences and distinguishing attributes (Alwin & McCammon, 2003). These attributes, in turn, are reflected in cohort variations in life course trajectories.

Clearly, there is a rich assortment of concepts that constitute the life course framework. Although each of them can be understood apart from the others, it can be observed that there is a web of potential relationships among each of the multiple components of the framework. For example, the timing and sequencing of transitions such as entry into marriage or the labor force might vary across cohorts; or, to take a second example, linked lives may either constrain or enhance the exercise of agency. Moreover, each component is bound to others through their joint effects on life course trajectories. Collectively, they represent the circumstances that guide lives through time and that help us to understand how the life course trajectories of individuals and groups come to differ.

I turn now to an outline of the stress process, a framework which, like that of the life course, rests on multiple conceptual components, each of them potentially related to the status placement of people in the hierarchical arrangements of the society. It is the emphasis on the pivotal part played by status stratification that helps to establish the place of the stress process within sociology and to distinguish it from other disciplines that also have an interest in stress (Pearlin, 1989). Also of vital importance to the framework, of course, is the concept of stressors, the broad array of problematic conditions and experiences that can challenge the adaptive capacities of people. Stressors appear either in the form of disruptive events or the more persistent hardships and problems built into the fabric of social life. The stressors that are of special interest to research into the stress process are those that are related both to people's social and economic status and to indicators of their health.

It is stressors of this type that most clearly represent factors helping to explain the epidemiologically observed relationships between status placement and health.

We have learned that exposure to one stressor, regardless of whether it is an event or more chronic hardship, may lead over time to exposure to other, secondary, stressors, a process we call stress proliferation. It has been observed, for example, that economic strain and family conflict often follow involuntary job loss (Pearlin, Lieberman, Menaghan, & Mullan, 1981) or that being involved in a caregiving role can lead to problems in one's occupational role (Pearlin, Aneshensel, & LeBlanc, 1997). Stress proliferation can result in people's lives becoming mired in clusters of stressors, some of which may persist and contribute to cumulative adversity (O'Rand, 1996) and to increases of what is called allostatic load, the burden of adaptation placed on various systems of the organism (McEwen & Seeman, 1999).

Several additional components of the stress process help to explain, at least partially, why people exposed to similar stressors do not necessarily suffer the same deleterious health consequences. Among the resources that potentially serve as protective barriers to these consequences are social support, social integration, various belief systems, coping repertoires, and self-concepts, such as mastery and self-esteem. Possession of these resources may vary with status placement, just as exposure to stressors does. Finally, in its effort to explain the stratification of health in the society, studies guided by the stress process framework observe a variety of dimensions of physical and mental health that are consequences of exposure to stressors. Some aspects of health and well-being, such as anxiety, can appear immediately following exposure to the stressor and abate when the stressor eases. By contrast, others, such as impairment of the cardiovascular system, may take several years to develop and persist even after its stressful antecedents are diminished.

DIFFERENT MEANINGS AND APPLICATIONS OF SIMILAR CONCEPTS

Transitions

There is probably no concept more fully shared by life course and stress process scholars than the notion of transitions. Nevertheless, they tend to be drawn to the concept for different reasons. For the former, interest is largely based on the fact that entry and exit transitions tend to be aligned with age and, therefore, serve as markers of movement along the life course. Indeed, it has been observed that the sheer number of transitions people are likely to experience tends to taper off with age (Murrell, Norris, & Grote, 1988). Moreover, the types of transitions through which people pass are also likely to vary with their age. Younger adults, more than their elders, are usually involved with entry into new roles and statuses, whereas the transitions of older people are more likely to involve exits from roles and statuses.

The stake of stress researchers results foremost from the fact that some of them are potentially disruptive. However, certain stressful transitions are likely to occur in step with age, thus bringing the interests in line with those of life course scholars. The loss of a spouse in late life and marital dissolution at an earlier point of the life course is an examples of age-related transitions that have a high likelihood of being stressful. It is this correspondence between the occurrence of challenging transitional events and the point in the life course at which they are likely to take place that stands at the crux of what we have earlier called an alliance between life course and stress process paradigms (Pearlin & Skaff, 1996).

Despite their alliance, each field approaches transitions with somewhat different considerations and perspectives. Whether they entail role entry or role exit, to the life course scholar, transitions represent the principal benchmarks of the twists and turns and directions of life course trajectories. Stress process researchers, on the other hand, examine some of the same transitions as stressors having the potential capacity to disrupt lives and impose a load on the adaptive systems of individuals. In general, transitions that are sought after and built into normative social life, such as a long-awaited retirement, are likely to be far less taxing than those that are unwanted, such as mandatory retirement or involuntary job loss. One possible reason for the comparative ease of normative transitions is that, unlike their counterparts, they are preceded by a great deal of anticipatory socialization, although this socialization frequently fails to prepare one adequately for the realities of role loss or of becoming an incumbent of a new role. Moreover, even transitions that are normally benign may become stressful if they take place in close temporal proximity with multiple other transitions. This bunching up of transitions is found particularly among young adults, a group that has not received from either life course or stress process scholars the attention it deserves. Within a relatively compressed time span, young adults are likely to enter into several normatively desired but demanding roles and statuses crucial to the remainder of their lives. Such transitions include entry into the labor force, becoming financially established, initiating courtship or marriage, establishing an affordable residence, and becoming a parent. Even as they juggle these multiple normative transitions, they may have to contend simultaneously with other transitions that are neither normative nor desired, such as becoming providers of care to impaired parents. It can also be noted here that occasionally people are frustrated by the failure to pass through a desired transition, a problematic situation that has been described as a "nonevent" (Wheaton, 1994). Some of these nonevents involving unrealized transitions result from what we have referred to as role captivity (Aneshensel, Pearlin, & Schuler, 1993; Pearlin, 1975), such as experienced by those who are unwillingly obliged to take on a caregiver role or workers who would like to retire or to be full-time homemakers but are economically bound to unrewarding jobs.

As noted, both voluntary and involuntary transitions entailing role exits are more common among older than younger people. Although some of these transitions can be unwelcome or result in serious hardship and prolonged distress, it cannot be assumed that the loss of important roles, relationships, and activities must inevitably entail lasting distress. Whether exit from a role is a stressor and for how long it remains a stressor largely depend on the quality of one's experiences within the role being vacated (Wheaton, 1990a). To illustrate, the sense of loss following withdrawal from the labor force probably varies with the history of one's incumbency in the work role. Some workers who have been trapped in an onerous job easily yield the role, with whatever sense of loss they feel being tempered by a sense of gain; others, by contrast, will feel that they have been separated from the valued benefits of their work, such as friendships, a positive identity, and a source of status. Thus, quality of experience within the lost role serves as a context for determining whether a transition will be uplifting or stressful.

The ending of relationships with age peers due to death is another transition most often found among people of advanced age, though certainly no stranger to younger adults as well. In one respect, it is a transition unlike any other in that it may be repeated with the demise of each person who was part of the survivor's social network. Virtually all are eventually likely to experience the loss of others for whom they deeply care, but neither its repetition nor its commonness necessarily makes it less difficult to bear. Where it is a parent or spouse or other close family member who has died, survivors are likely to feel that they have lost a person with whom much of their significant past was shared and who had become incorporated as an integral part of one's very self. In effect, one loses not only a loved one but, as well, part of one's own history and self.

It is interesting that there are circumstances where an intense sense of loss of a loved one may be aroused even in the absence of death. I refer specifically to instances of Alzheimer's disease or other ailments involving progressive cognitive impairment, usually found among people of advanced age. Diseases of this type typically lead to a profound transformation of the individual's persona. Although the relationships of the impaired elder with family members persist, albeit in radically altered form, the radical changes observed in the afflicted relative may produce feelings of loss not entirely different from those following the death of a loved one (Pearlin, Mullan, Semple, & Skaff, 1990). Those in close interaction with the impaired person are constantly reminded by the transformations they witness that the individual who was, no longer is. The cognitive decline and behavioral deterioration that occur require that others, usually close family members, assume the role of caregivers. The transition into this role, in turn, can gradually surround the caregiver in a cluster of proliferated hardships that often become intensified with the passage of years. It is a role that

can become so totally engulfing that it often displaces other roles, reshapes the life course, and adversely affects the health and well-being of the caregiver (Skaff & Pearlin, 1992). Unlike other important roles, becoming a caregiver is not a normatively expected transition and, therefore, is not preceded by systematic preparation. And because it tends to progressively expand as it progresses through several stages, we have labeled it the "unexpected career" (Aneshensel, Pearlin, Mullan, Zarit, & Whitlatch, 1995). The assumption of caregiving roles is a transition that deserves the research attention it receives, for elderly spouses and adult children are currently drawn into it in large numbers and even more will be absorbed by it as the population continues to age.

It is well to keep in mind that the deleterious impact of a number of difficult transitions leading to loss and stress can be blunted over time by one's actions following the loss. The lonely widow or widower, for example, finds other intimate relationships, or disenchantment with a life of retirement motivates one to reenter the labor force. Some people also reallocate their time and energies in ways that help to compensate for loss. We have observed, for example, that some caregivers to spouses with Alzheimer's disease may convert personal loss into a philanthropic mission by joining and supporting organizations advocating for people in situations similar to their own. I do not wish to suggest that the stressful impact of transitions entailing loss and associated hardships can be precluded if managed properly. Their skillful management notwithstanding, such transitions are common and important sources of stressful change in life course trajectories. However, to understand the intensity and duration of the stressful impact of transitions involving loss, it is necessary to take into consideration the quality of the incumbency in the lost role and how people are dealing with whatever losses are associated with the change.

Brief note may be taken of an increasingly common transition worthy of close study, namely, the voluntary relocation of elders into communities and facilities where age, health status, and/or economic means is a criterion for admission. There is a great deal of variation among these communities and the housing and services they provide, but all test the adaptive capabilities of residents. The changes people confront as they leave their familiar worlds behind and settle into new age-segregated surroundings can be quite formidable: Established propensities for self-direction now must accommodate more externally imposed regulations and expectations; one makes new friends with the realization that time to death is too short to expect that they will become old friends, and one can get drawn into new patterns of group formation, based less on shared values and interests and more on current marital status and the level of one's mobility and physical fitness. There is also a tendency to protect prized identities by dwelling on past achievements and adventures. Given the aging of the population and the numbers of elders opting to live in retirement communities

or similar facilities, it is for many a challenging and major late-life transition that deserves systematic study.

I have dealt at length with transitions because it is a concept in which both life course scholars and stress researchers have a different but major stake. The contributions each has made to our understanding of transitions inform the other. The life course framework has heightened an awareness of the functions of transitions as pivotal to the continuities and discontinuities of trajectories across the life span. Research guided by the stress process, on the other hand, has helped to specify what kinds of transitions are potentially important to people's well being, for whom they are important, and under what conditions they are important. In this manner, stress research has helped to expand and elaborate a concept having an important place in the life course framework.

Timing and Sequencing

The timing and sequencing of transitions essentially have no systematically recognized place in research into the stress process. Despite being overlooked, both concepts could have a useful explanatory function in research into the stress process. Specifically, they may contribute to the effort to understand why the same transitions can affect some people adversely and others not at all. It is reasonable to speculate that the effects of some transitions depend on the age at which they occur and whether they take place before or after other transitions. An obvious example is becoming a parent. Having children is likely to impose some basic structural changes in the lives of all new parents, but what these changes are, the difficulties that result from them, and the duration of the difficulties are probably very different for new mothers and fathers still in their midteens in comparison to those already launched into adult roles. Similarly, for most people, the effects of the transition into parenthood may differ according to whether it precedes or follows a transition into marriage or other relatively stable relationships.

What is it about off-time and out-of-sequence transitions that potentially makes them problematic? From a stress process perspective, the adverse long-term health effects that might ensue from the timing and sequencing of transitions are likely to be indirect. That is, the lifelong consequences of out-of-step transitions do not result simply from the violation of normative practices. Instead, important transitions whose timing and sequencing occur against the grain of widely accepted norms tend to incur an increased risk of exposure to various enduring and stressful hardships. Thus, following up from the example of early and single parenthood, there is a good chance that the nonnormative timing and sequencing increase the probability of being exposed to such contingencies as chronic economic strains, child rearing problems, family conflicts, blocked aspirations, and social isolation. Similar conjecture could be made about the lives of people who enter the labor force before completing

high school. The salient issue is that if the timing and/or sequencing of a transition into or out of a role are nonnormative, there is a good chance that it will eventually result in a substantial accumulation of disadvantage and adversity over the life course. These concepts, then, are potentially as meaningful to the stress process as they have been to the study of the life course. Again, however, though they may be equally important to both specialties, their meaning to and significance for each may be considerably different.

Agency and Mastery

Still looking across the distinctive but overlapping boundaries of the life course and stress process frameworks, one finds additional concepts that have some similarities but are somewhat different in their labels, meanings, and applications. Two such concepts are that of agency (see Gecas, 2003) and of mastery (Pearlin & Schooler, 1978), each of them among the pillars of their respective frameworks. Each, too, is among a cluster of several concepts that at their core have some reference to personal control (see Pearlin & Pioli, 2003). Underlying both agency and mastery is the implicit assumption that people are not simply the passive objects of the environmental and experiential forces acting upon them. They appear similar, too, in regarding responses to these forces not as reflections of innate attributes fixed in personality, as seems to be the case with hardiness or resilience, but as based on learned appraisals of their capabilities in relation to the manageability of the life circumstances they face. Beyond these similarities, however, their meaning and usage seem in subtle but important ways to diverge.

As originally conceptualized, mastery is a self-belief, a conviction that one is able to control the important circumstances that are currently impinging on one's life. In a host of studies, it has consistently been demonstrated that mastery is a protective resource having the capacity to appreciably reduce the harmful consequences of extant stressors (e.g., Avison & Cairney, 2003). It has also been shown that the sense of mastery tends to develop from a background of successful attainment of socially prized goals; therefore, it is more commonly found among those having advantaged statuses (Pearlin, Nguyen, Schieman, & Milkie, 2007).

In contrast to mastery and the control of existing circumstances, some scholars (e.g., Gecas, 2003) seem to view agency as the decisions and actions that endow people with the ability to reach beyond the management of current exigencies to control their own life course destinies. Because there are no direct measures of agency and, therefore, no studies of either its long-term powers or who might possess them, it is not possible at this time to put these assumptions to test. Of course, people do have long-term visions of their lives and they do attempt to decide, act, and in other ways steer themselves in a direction leading to the realization of their visions. Yet, it seems to be somewhat chimerical to assume that trajectories formed early and extending into late

life are the products of agency-driven self-direction. Such an assumption tends to ignore the fact that unforeseen societal and personal circumstances can and often do arise to defy agency, forcing the deferment, modification, or replacement of earlier visions with new ones. Economic recessions, wars, family upheavals, illness, and injury are among the many exigencies that can compete with agency for the control of our lives and act as barriers to the attainment of reasonably conceived futures and cherished goals. Control beliefs, whether regarding the present, as in the case of mastery, or the future, as in the case of agency, may have some psychological benefits independent of actual control. However, given the state of current knowledge, the connections between these beliefs and the actual controls people are able to exercise over their life course trajectories remain matters of conjecture.

Linked Lives and the Role Set

The notion of linked lives is still another hallmark of the life course framework, one whose importance is emphasized by leading scholars (Elder, George, & Shanahan, 1996). At virtually every step of the life course, the actions, fortunes, and misfortunes of one person are likely to affect those with whom the person has close social relationships. Some of these links are forged at the moment of birth and extend to eventual death. Other links are established with the passage of time and as people transition into new roles. Over the life course, they involve a variety of family members, work mates, friends, neighbors, coparticipants in voluntary associations, and those with whom we have formed intermittent, formal, and contractual relationships. It is easy to be in fundamental agreement with the concept of linked lives, but it needs to be recognized that the links that join us to others are not of equal significance, strength, or duration. Nor do they remain in place in the face of all contingencies; links occasionally become unlinked.

The firmest and the most meaningful links are typically within what Merton (1957) described as role sets. Although it is a conceptual cousin of linked lives, for several reasons I regard it as more useful in the study of the stress process. The notion of role set directs attention to frequently repeated or ongoing interactions, especially those occurring within institutional settings, such as family, education, occupation, and economy. Because these institutions are important to the functioning of the larger society, the incumbents of roles within them tend to have been socialized to hold them as being important to their own welfare. As a result, chronic hardships or disruptive eventful stressors arising within these institutional domains are apt to be experienced as particularly stressful by the persons confronting them. Thus, because the roles themselves are usually important and the relationships within them often entail close interdependence, adversities befalling one person within the contexts of such roles are likely to reverberate through the role set.

Under some conditions, then, the stressors one person faces can become sources of stress for her or his interacting partners within the role set. The empathic joys and pains we experience with the ups and downs of people with whom we are closely linked have been described as the cost of caring (Kessler & McLeod, 1984). Indeed, the contagion of stressors within role sets can be thought of as representing a type of stress proliferation (Pearlin, Schieman, Fazio, & Meersman, 2005). However, the proliferation of stressors is not necessarily confined to relationships within a role set; it can occur as well between role sets. This is seen in studies that trace problems arising in one institution as they affect the incumbents of a role set located in another institution. It is not uncommon, for example, for stressors originating in the occupational realm to affect the interactions of role sets within the family (Wheaton, 1990b). It is not intended here to suggest that the concepts of linked lives and the role set are somehow incompatible, but only to emphasize that not all links joining individuals to others are of equal importance, either to the directions of the life course or to the well-being of the linked individuals.

EXPLAINING THE CONNECTIONS OF PAST TO PRESENT

Both the life course and stress process paradigms share an understanding that much of what is observed in middle and late life had its origins in earlier years. The very notion of a life course trajectory implies a connection between the past and the present that transcends the segmentation of life by chronological age, a perspective that to a large extent distinguishes the study of the life course from the study of age groups. The effort to observe interrelationships among the various components of the stress process similarly assumes that the distant past may be linked to the near past and to the present. As with the life course, there is an assumption that people are never completely separated from the imprint of their origins, even as the world about them may change (see Elo & Preston, 1992; McLeod & Almazan, 2003). Indeed, there is a body of evidence showing that the circumstances surrounding the life course of parents can exert an influence on the ways they raise and socialize their children (e.g., Elder, Van Nguyen, & Caspi, 1985). Thus, the connections between the past and the present can extend across generational lines.

Of course, not all trajectories are so continuous or neatly linear that they directly lead to the future. Some may be sharply discontinuous, such as those of men with histories of delinquency whose lives took a different turn following military service and marriage (Sampson & Laub, 1993). For most, however, the influence of one's early experiences, dispositions, social ties, and values can continue to echo across the entirety of the life course. Understandably, researchers into stress and health find life course perspectives and their emphasis on transitions and trajectories to be congenial with research seeking to identify the early conditions

that contribute to later health and health disparities. This research has demonstrated that some of the social and economic antecedents of systemic differences in mortality and morbidity can be traced back to the conditions and experiences of early life (e.g., Kessler, Gillis-Light, Magee, Kindler, & Eaves, 1997; McLeod, 1991). Therefore, it is usually not enough to look solely at proximal circumstances to account for health and health disparities. As important as they may be, proximal circumstances, such as health behaviors, are often themselves the products of conditions more distally located in the life course.

However, knowing that the past is connected to the present does not inform us of the specific mechanisms by which this connection is established. Some of these connections are formed and upheld by patterns of status attainment whose causes can reach back to the time of birth and span much of the life course. We have learned in our own (unpublished) research, for example, that in addition to parents' own educational and economic statuses, the number of children in the household of origin and whether it is a one- or two-parent family are appreciably and independently associated with the level of education attained by a child. Education, in turn, is a gateway to subsequent statuses, specifically occupational and economic, around which exposure to stressors and other health-related circumstances vary. Of course, there are those who succeed in elevating their statuses and, as well, those who are downwardly mobile. But the trajectories of many people are flat: At whatever status level one's life course begins, advantaged or disadvantaged, there is a significant chance that it will remain at that level within different institutional contexts and through the entirety of the life course. These continuities are clearly documented by work that focuses specifically on economic status (Hayward, Cummins, Miles, & Yang, 2000; Kahn & Pearlin, 2006). Status attainment—or the absence of it—is undoubtedly the result of many personal, social, and economic factors. The expansion or contraction of opportunity structures in the early years of one's productive life undoubtedly plays a major part in influencing where one ends up. Nevertheless, available studies show that although not all people whose lives began in economic hardship end up that way, people who must contend with limited economic resources in late life are likely to have set out on their life course facing economic adversity. These patterns of status attainment across the life course are of paramount importance in our understanding of the connections between early circumstances and later health and health disparities.

There are other factors that help to explain the connections between past and present, one of them involving exposure to trauma resulting from abuse of various kinds or being caught in highly disruptive situations such as parental divorce (George, 1999). The toxic emotions following these kinds of situations might remain so deeply embedded in the psyche of the individuals that they continue to interfere with their well-being long after the situation had occurred.

However, as severe as the direct effects of the traumatic and threatening experience are, they possibly also set in motion what has been described as chains of risk (Ferraro & Shippee, 2008), increasing the chances of exposure to a succession of health-related stressors that may stretch from early to late life (Wheaton, 1994). Essentially, people's lives can be caught up in a temporal proliferation of stressors, where repeatedly one or more stressors follow others through time. Early adversity, including trauma, does not necessarily have a leapfrog connection to later life but, instead, is connected by a series of interrelated hardships and problematic experiences.

For their part, life course scholars more than stress researchers seem to emphasize the emergence of macrohistorical conditions as a major force behind the formation of cohorts and the directions and change of life course trajectories. It is an orientation that has been supported by landmark studies showing the effects of long-term economic downturns (Elder, 1974) and wartime mobilization (Elder, 1987). With a few exceptions (e.g., Dooley, Catalano, & Rook, 1988; Tausig & Fenwick, 1993), macro change has been given little attention by stress researchers, despite the fact that the effects of major societal upheavals reach across the life course and help to elucidate the links between past and present. Perhaps this neglect is the result of some formidable methodological problems in identifying and tracking cohort effects. Even change of great magnitude may be difficult to recognize until long after it has begun or ended. Therefore, because it is not always evident what makes a cohort a cohort (Rosow, 1978), effects on people's lives may be difficult to identify and chart.

Further adding to the difficulty of tracking cohorts and the conditions that define them is the fact that cohorts are socially and economically diverse (Dannefer, 1987), and neither macroscopic change nor its effects fall equally on the shoulders of people of different status placement. Life course scholars and stress researchers alike, therefore, need not only to be attuned to the onset and unfolding of significant large-scale social and economic changes but also to be theoretically prepared to address what and for whom the consequences are or will be.

DISCUSSION AND CONCLUSIONS

Of the numerous fields and specialties that are clustered under the large umbrella of sociology, many share some orientations and interests with the life course, particularly those engaged in longitudinal research. To some extent, this reflects the vibrancy of the discipline, for as the number of subspecialties under its aegis expands, their work is likely to become overlapping and of mutual relevance. A comparative examination of the related specialties provides an opportunity to raise awareness of their assumptions and to sharpen the edges of our thinking and research. Here I have compared the concepts, strategies, and agendas of the life

course and stress process fields, two areas of sociological specialty that share a basic interest in the change and continuities of people's lives. They are also areas in which my own work has been invested for several decades. I believe that looking at each of these specialties through the lens of the other can benefit the work of each.

It is quickly apparent that there are similarities in the contents of the conceptual toolboxes of the two frameworks, but there are also major differences. Some of the differences stem from their contrasting agendas and goals. Much of the mainline life course literature has focused directly on the development of its key concepts and their contributions to an understanding of the life course and its trajectories. In describing these concepts, there is a tendency to assume their universal and unconditional applicability. That is, everyone goes through transitions whose timing and sequencing can be described; the lives of everyone are linked to those of others, and by definition, everyone is part of a birth cohort. By contrast, much research into the stress process begins with the knowledge that important dimensions of health vary with the social and economic circumstances of people. The task then becomes one of identifying the conditions helping to explain these variations. Taking transitions as but one example, it is seen that the interests of stress process researchers are confined to transitions having a demonstrated relationship to health. Once that relationship is established, other questions are asked: Are there conditions under which health-related transitions are more or less stressful? Is exposure to the transitions and their relevant conditions more likely to occur among some status groups than others? Are there resources that lessen the otherwise harmful impact of the transition?

Differences of this order should by no means be construed as a criticism of life course scholarship. Indeed, a great deal would be lost if somehow the two specialties were passed through a blender and emerged indistinguishable. It is the very level of generality at which much of its study is pitched that makes the conceptual components of the life course framework easily adaptable to the interests of other fields of inquiry. This is reflected by the diversity of the work that has incorporated life course perspectives. By contrast, because of the specificity of some of its pivotal concepts and its more narrowly focused goals, the stress process framework can offer comparatively little to fields other than those concerned with health issues.

Yet, research into the stress process can underscore the need to refine some of the concepts underlying the life course framework, such as those concerning notions of agency and linked lives. Additionally, it would be well to attach considerations of social and economic status to each of the conceptual components of the life course framework. Looking in the other direction, one finds possible contributions of the life course framework to research into the stress process. Thus, the timing and sequencing of transitions and other exigencies strike me as being of considerable utility in

efforts to explain diverse consequences of the same stressor. To take but one illustration, it may be more difficult for 50- or 60-year-old workers who have lost their jobs to reenter the labor force than others half that age. Similarly, if unemployed persons also have family who depend on their earnings, they, too, may experience more hardship than-out-of-work people who have not yet taken on family roles.

Behind this paper is a realization that the progress of a scientific field cannot be measured solely by the questions it has answered and the problems it has solved. Progress needs also to be gauged by the new questions it generates and the problems that arise in conjunction with these questions. Most paramount, the effort to formulate and answer new questions requires an ongoing analysis of concepts, their meanings, and applications, a task without end. Paradoxically, perhaps, the more important and changing the field of scientific inquiry, the more necessary it is to take stock of the thinking that guides its work. Because of its importance and dynamic character, I believe we can look at life course sociology with excitement and satisfaction, not only with what it is but also with what its future will be.

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REFERENCES

- Alwin, D. F., & McCammon, R. J. (2003). Generations, cohorts, and social change. In J. T. Mortimer & M. J. Shanahan (Eds.), *Handbook of the life course* (pp. 23–49). New York: Kluwer Academic/Plenum.
- Aneshensel, C. S., Pearlin, L. I., Mullan, J. T., Zarit, S. H., & Whitlatch, C. (1995). *Profiles in caregiving: The unexpected career*. New York: Academic Press.
- Aneshensel, C. S., Pearlin, L. I., & Schuler, R. H. (1993). Stress, role captivity, and the cessation of caregiving. *Journal of Health and Social Behavior*, 34, 54–70.
- Avison, W. R., & Cairney, J. (2003). Social structure, stress, and personal control. In S. H. Zarit, L. I. Pearlin, & K. W. Schaie (Eds.), *Personal control in social and life course contexts* (pp. 127–164). New York: Springer.
- Dannefer, D. (1987). Aging as intra-cohort differentiation: Accentuation, the Mathew effect, and the life course. *Sociological Forum*, 2, 211–236.
- Dannefer, D. (2003). Toward a global geography of the life course: Challenges of late modernity to life course theory. In J. T. Mortimer & M. J. Shanahan (Eds.), *Handbook of the life course* (pp. 647–660). New York: Kluwer Academic/Plenum.
- Dannefer, D., Uhlenberg, P., Foner, A., & Abeles, R. (2005). On the shoulders of a giant: The legacy of Matilda White Riley for gerontology. *Journal of Gerontology: Social Sciences*, 60B, 206–394.
- Dooley, D., Catalano, R., & Rook, K. (1988). Personal and aggregate unemployment and psychological symptoms. *Journal of Social Issues*, 44, 107–123.

- Elder, G. H. (1974). *Children of the great depression: Social change in life experience*. Chicago: University of Chicago Press.
- Elder, G. H. (1987). Wartime mobilization and the life course: A cohort of WWII veterans. *Sociological Focus*, 2, 449–472.
- Elder, G. H. (1998). The life course as a developmental theory. *Child Development*, 69, 1–12.
- Elder, G. H., George, L. K., & Shanahan, M. J. (1996). Psychosocial stress over the life course. In H. B. Kaplan (Ed.), *Perspectives of structure, theory, life course and methods* (pp. 247–292). Orlando, FL: Plenum Press.
- Elder, G. H., Van Nguyen, T., & Caspi, A. (1985). Linking family hardships to children's lives. *Human Development*, 56, 361–375.
- Elo, I. T., & Preston, S. H. (1992). Effects of early-life conditions on adult mortality. *Population Index*, 58, 186–212.
- Ferraro, K. F. (2001). Aging and role transitions. In R. H. Binstock & L. K. George (Eds.), *Handbook of aging and the social sciences* (5th ed., pp. 313–330). New York: Academic Press.
- Ferraro, K. F., & Shippee, T. P. (2008). Black and white chains of risk for hospitalization over 20 years. *Journal of Health and Social Behavior*, 49, 193–207.
- Gecas, V. (2003). Self agency and the life course. In J. T. Mortimer & M. J. Shanahan (Eds.), *Handbook of the life course* (pp. 369–388). New York: Kluwer Academic/Plenum.
- George, L. K. (1999). Life course perspectives on mental health. In C. S. Aneshensel & J. Phelan (Eds.), *Handbook of the sociology of mental health* (pp. 565–582). New York: Kluwer Academic/Plenum.
- Hayward, M. D., Cummins, E. M., Miles, T., & Yang, Y. (2000). The significance of socioeconomic status in explaining the racial gap in chronic health conditions. *American Sociological Review*, 65, 910–930.
- Kahn, J. R., & Pearlin, L. I. (2006). Financial strain over the life course and health among older people. *Journal of Health and Human Behavior*, 47, 17–31.
- Kessler, R. C., Gillis-Light, J., Magee, W. K., Kindler, K. S., & Eaves, L. J. (1997). Childhood adversity and adult pathopsychology. In I. H. Gotlib & B. Wheaton (Eds.), *Stress and adversity over the life course: Trajectories and turning points* (pp. 29–49). New York: Cambridge University Press.
- Kessler, R. C., & McLeod, J. D. (1984). Sex differences in vulnerability to undesirable life events. *American Sociological Review*, 49, 620–631.
- McEwen, B. H., & Seeman, T. E. (1999). Protective and damaging effects of mediators of stress. In N. E. Adler, M. Marmot, & B. H. McEwen (Eds.), *Socioeconomic status and health in industrialized nations: Social psychological and biological pathways* (pp. 30–47). New York: New York Academy of Sciences.
- McLeod, J. D. (1991). Childhood parental loss and adult depression. *Journal of Health and Social Behavior*, 32, 205–220.
- McLeod, J. D., & Almazan, E. P. (2003). Connections between childhood and adulthood. In J. T. Mortimer & M. J. Shanahan (Eds.), *Handbook of the life course* (pp. 391–436). New York: Kluwer Academic/Plenum.
- Meadows, S. O., McLanahan, S. S., & Brooks-Gunn, J. (2008). Family structure and maternal health trajectories. *American Sociological Review*, 73, 314–334.
- Merton, R. K. (1957). The role set: Problems in sociological theory. *British Journal of Sociology*, 8, 106–120.
- Merton, R. K. (1968). *Social theory and social structure* (enlarged edition, pp. 140–156). New York: The Free Press.
- Murrell, S. A., Norris, F. H., & Grote, C. (1988). Life events in older adults. In C. Cohen (Ed.), *Life events and psychological functioning: Theoretical and methodological issues* (pp. 96–122). Newbury Park, CA: Sage.
- O'Rand, A. (1996). The precious and the precocious: Understanding cumulative advantage and disadvantage. *The Gerontologist*, 36, 230–238.
- Pearlin, L. I. (1975). Sex roles and depression. In N. Datan & L. Ginsberg (Eds.), *Life-span developmental psychology: Normative life crises* (pp. 191–207). New York: Academic Press.
- Pearlin, L. I. (1989). The sociological study of stress. *Journal of Health and Social Behavior*, 30, 241–256.
- Pearlin, L. I., Aneshensel, C. S., & LeBlanc, A. (1997). The forms and mechanisms of stress proliferation: The case of AIDS caregivers. *Journal of Health and Social Behavior*, 38, 223–236.
- Pearlin, L. I., Lieberman, M., Menaghan, E., & Mullan, J. T. (1981). The stress process. *Journal of Health and Social Behavior*, 22, 237–256.
- 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., Nguyen, K., Schieman, S., & Milkie, M. A. (2007). The life course origins of mastery among older people. *Journal of Health and Social Behavior*, 48, 164–179.
- Pearlin, L. I., & Pioli, M. F. (2003). Personal control: Some conceptual turf and future directions. In S. H. Zarit, L. I. Pearlin, & K. W. Schaie (Eds.), *Personal control in social and life course contexts* (pp. 1–21). New York: Springer.
- Pearlin, L. I., Schieman, S., Fazio, E. M., & Meersman, S. C. (2005). Stress, health, and the life course: Some conceptual specifications. *Journal of Health and Social Behavior*, 46, 205–219.
- Pearlin, L. I., & Schooler, C. (1978). The structure of coping. *Journal of Health and Social Behavior*, 19, 2–21.
- Pearlin, L. I., & Skaff, M. M. (1996). Stress and the life course: A paradigmatic alliance. *The Gerontologist*, 36, 229–247.
- Rosow, I. (1978). What is a cohort and why? *Human Development*, 21, 65–75.
- Sampson, R. J., & Laub, J. H. (1993). *Crime in the making: Pathways and timing points through life*. Cambridge, MA: Harvard University Press.
- Skaff, M. M., & Pearlin, L. I. (1992). Role engulfment and the loss of self. *The Gerontologist*, 32, 656–664.
- Tausig, M., & Fenwick, R. (1993). Macroeconomic and social class influence on the relationship between work and stress. *Research in Social Stratification and Mobility*, 12, 361–389.
- Wheaton, B. (1990a). Life transitions, role histories, and mental health. *American Sociological Review*, 55, 209–224.
- Wheaton, B. (1990b). Where work and family meet: Stress across social roles. In J. Eckenrode & S. Gore (Eds.), *Stress between work and family* (pp. 153–174). New York: Plenum Press.
- Wheaton, B. (1994). Sampling the stress universe. In W. R. Avison & I. Gotlib (Eds.), *Stress and mental health* (pp. 77–114). New York: Plenum Press.