Chapter 16
Current Issues and Future Directions in Research into the Stress Process

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Over the past several decades, the sociological study of stress has amassed a bountiful body of research that has appreciably added to our understanding of the social and economic underpinnings of mental health and mental health disparities in society. Aided by the stress process paradigm, light has been shed on some of the functions and dysfunctions of the surrounding society and its institutions. But despite the productive record it has established, research into stress and mental health remains a work in progress. Therefore, like other areas of inquiry, it is useful to pause occasionally and appraise what has been learned, to question assumptions and practices, and to ponder directions that might be fruitfully followed in the future. This chapter can be considered such a pause. It focuses on some of the thinking underlying the stress process perspective, a conceptual paradigm that, since it was introduced over 30 years ago (Pearlin, Menaghan, Lieberman, & Mullan, 1981), has had a major role in providing the theoretical foundations supporting the advancement of the sociological study of stress and mental health. A brief overview of the stress process and its conceptual components will set the stage for much of what follows in this chapter.

The perspectives and understanding of the stress process grew out of an analysis of the effects of involuntary job loss on depression (Pearlin et al., 1981). Drawing on data from a panel study, job loss was found to be related to an elevation in depression. However, it was further found that this relationship was largely indirect. That is, the event of job loss led to other more durable adversities, including financial and marital strain. These secondary stressors, as they came to be called, in large measure accounted for the relationship of job loss to increases in the level of depression. The impact of the stressors on depression, moreover, was found to depend significantly on the functions of personal and social resources, such as social support, mastery, and self-esteem. Whereas the positive presence of these resources has the capacity to mute the impact of stressors on depression, it is also the case that when the resources are diminished by exposure to stressors, depression is likely to increase. Thus, these resources were shown to be capable of both mediating and moderating the effects of stressors on depression. The core components of this early analysis—stressors, mediators/moderators, and mental health outcomes—continue to be the major conceptual underpinnings of the stress process perspective, although the perspective has gone through considerable expansion and elaboration.

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Fig. 16.1 The stress process
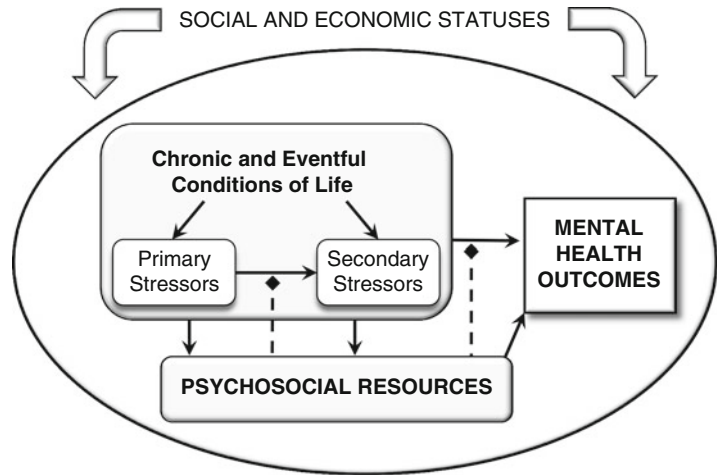
What places the stress process squarely among issues of sociological concern is the fact that each of its components—stressors, moderators/mediators, and mental health outcomes—can often be traced back to people's placement in social and economic statuses. Thus, a major feature of the stress process framework is the ubiquitous influence that is often exercised by social and economic statuses on one or more of the constituent components (Pearlin, 1989, 1999). This feature of the stress process has been instrumental in explaining mental health disparities in society (Turner, 2010) and is among the several reasons Wheaton (2010) identifies as accounting for the fact that the stress process paradigm continues to flourish as it passes its third decade of use.

The core components of the stress process and their hypothesized relationships are portrayed in Fig. 16.1. It can be pointed out that although the figure provides a useful schematic overview of the process, it does not capture the many possible conditions and experiences that can harm mental health. It is now evident, for example, that each component of the process potentially subsumes a host of stressful circumstances, protective moderating resources, and psychological states and that these subsumed elements may be joined in complex interrelationships. Thus, the stress process is typically complex, developing within the contexts and flow of people's social life. Moreover, the interconnections among the many factors subsumed by the components of the stress process perspective are often formed over time, thus making the term *process* descriptively accurate. Perhaps most salient from a sociological perspective is that a stress process perspective helps to articulate the links of a causal process that extends from the organization and status arrangements of society to the mental health of its members.

Our discussions are organized around Fig. 16.1, beginning with a consideration of stressors and then moving to the other components of Fig. 16.1. In each case, we address both our current understanding of the component and the research directions that might lead to the expansion of our understanding.

Conceptualizing the Landscape of Stressors

Stressors refer to circumstances and experiences to which it is difficult to adjust and, therefore, that can impose deleterious effects on emotions, cognitions, behavior, physiological functioning, and well-being. Two broad forms of social stressors can be identified: (1) Socio-environmental demands that tax or exceed the individual's ordinary capacity to adapt and (2) the absence of the means to attain sought-after ends (Aneshensel, 1992; Lazarus, 1966; Menaghan, 1983; Pearlin, 1983). External

circumstances that challenge or obstruct are labeled *stressors*, whereas *stress* refers to internal dysfunctions that result from these circumstances. Thus, stress is not an inherent attribute of external conditions, but emanates from discrepancies between those conditions and characteristics of the individual—his or her status, locations, needs, desires, values, perceptions, resources, skills, and so forth (Aneshensel). For this reason, the same objective stressor can and usually does evoke disparate stress responses in different individuals, although, as we shall see, this is only part of the story of why stressors do not exert uniform effects on the mental health of everyone.

It can be seen that this definition is sufficiently broad to accommodate a panoply of difficult life circumstances. Among these circumstances are a variety of disruptive life events that can threaten safety and security and disrupt or end important relationships (e.g., Thoits, 1983). Although early work on stress and mental health relied almost exclusively on disruptive life events, the limits of this approach soon became evident (Pearlin, 1983; Thoits, 1983). It is now recognized that other stressors are chronic in nature, arising from more enduring and difficult life circumstances and conditions. Economic strains, marital and family conflicts, discriminatory experiences, job pressures, and frustrated aspirations as well as stressful events are but a few examples of chronic or repeated stressors that may surface in people's lives (Pearlin, 1983).

To a major extent, the variety and breadth of stressors stem from the multiple contexts of social life from which the stressors can arise. In his detailed taxonomy of the "the universe of stressors," Wheaton (1994) distinguishes the micro-, meso-, and macro-levels of the contexts in which stressors can arise. This distinction is important to the extent that it indicates that virtually every major context in which people are engaged is a potential source of stressors, ranging from their informal social networks to the neighborhoods in which they reside, the social and economic institutions in which they have roles, and the overarching conditions of the larger society, such as protracted wars and economic recessions (see Chap. 15). The breadth of Wheaton's comprehensive framework invites a continual search for new and unexamined conditions that are potentially harmful to mental health. It is also notable that in recent years, neighborhoods and their ambient conditions indicative of disorder have come to be seen as major ecological sources of stressors (see Chap. 23).

Adding to the challenging nature of the search for socially rooted stressors and their sources is the fact that the array of stressors that people confront is not static but, instead, changes as they age and move along the life course (Pearlin & Skaff, 1996). For example, young adults face the acquisition of new roles and statuses, such as finding a job, taking on and adapting to a marital or other intimate partner, and becoming a wage earner. At the other end of the age spectrum are a growing number who must deal with the stress of declining functional abilities (e.g., Gayman, Turner, & Cui, 2008; Yang, 2006). These examples illustrate how the life course serves as a crucible in which the universe of stressors is formed and experienced. Research that focuses on the universe of stressors without a consideration of the life-course context of these conditions is likely to overlook a fundamental framework that underlies their creation and effects.

In addition to the changes brought about by aging and life-course shifts, the universe of stressors to which people are exposed is also altered to some extent by innovations and changes that arise in the surrounding society. For example, Glavin, Schieman, and Reid (2011) describe an emergent source of stress fueled in large part by innovations in communication technologies. These authors refer to this emergent source of stress as *role-blurring*, which occurs when roles that are usually segregated in time and space become comingled. Their study underscores how technological changes in communications undermine the separation of roles; thus, through increased access to and penetration by new forms of communication, work demands are more easily projected into the family domain. This study further found that women more than men are likely to be affected by the blurring of work and household roles, illustrating how the emergence of stressful change may be entangled with social statuses. Thus, the universe of sources of stress continues to expand.

A type of stressor deserving more attention than it has as yet received is those that are anticipated or apprehended rather than operant (e.g., Starcke, Wolf, Markowitsch, & Brand, 2008). Unlike those

negative events and strains that have a current and active presence in the lives of people, anticipated stressors do not exist as realities but are viewed as having the potential to become so. Anticipatory stressors may be aroused by a variety of circumstances. For example, research in criminology has documented that people's fear of being victims of crime increases following incidents of victimization among those within in one's social network (Agnew, 2002). These findings suggest that as hardships befall significant others, individuals may increasingly anticipate that their own lives will be impacted by the same threatening circumstances.

On a much larger scale is the arousal of anticipatory stressors associated with fluctuations in the economic conditions across the society. It is has been well established that those directly exposed to the financial strains that accompany recessions can suffer deleterious mental health consequences (Zivin, Paczkowski, & Galea, 2011). However, as economic hardships begin to affect relatives, friends, neighbors, or coworkers and are daily subjects of media reports, the misfortunes of others can result in anxiety and apprehension among those who have not directly experienced such strain. The fates of others, we propose, may spur the more fortunate to contemplate their own economic and occupational futures. That is, those not yet the victims of economic adversity may begin to question if there will be downsizing at their place of work, if the employer will move the entire enterprise offshore where there is a population willing to work for less compensation, or whether their savings are at risk of erosion. These are the kinds of questions that can surface as anticipatory stressors during hard times.

We would expect, too, that individuals in less advantaged statuses are most vulnerable to these kinds of anticipatory stressors, for they are more likely to have more numerous and stronger social connections with individuals who are already struggling with financial problems. This is suggested by Wilson and Mossakowski (2009), who find that African-Americans and Latinos have a greater fear of job loss than their white counterparts, regardless of their human capital credentials (e.g., education and work experience) and job labor market advantages (e.g., favorable market sector). More consideration of anticipated stressors, we believe, would help to advance our understanding of status-related differences and similarities in mental health, even in the absence of observable stressors.

As noted above, it is those stressors related to the hierarchical arrangements of the society and its institutions that help to base research into the stress process within the domain of sociology. Yet, it is worth briefly noting that there are instances where stressors that are not status-related are nevertheless relevant to sociological study. Specifically, randomly distributed stressors, such as natural disasters, may activate mediators/moderators or evoke dimensions of distress that are status-related. Thus, status placement, even when unrelated to exposure to a stressor, may nevertheless be related to other components of the stress process that are set in motion by that stressor. Moreover, an initial randomly distributed stressor may, through a process of stress proliferation, give rise to other stressors that are status-related. It is to the process of stress proliferation that we now turn.

Stress Proliferation

Along with the awareness of the ubiquitous effects of statuses on the entire stress process, we have come to regard stress proliferation as a pivotal aspect of the stress process (Pearlin, Aneshensel, & LeBlanc, 1997). Stress proliferation refers to new or "secondary" stressors that emerge from "primary" stressors, those to which people are initially exposed. The phenomenon of stress proliferation is an important feature of the stress process because it extends our vision beyond the presence and impact of a single stressor at a single point in time, calling attention instead to the *configuration* of multiple stressors that may simultaneously or serially impinge on people's lives. Proliferated stressors can be in the form of either untoward events or chronic strains. In addition, a negative event may result in additional events or chronic strains, just as strains may result in additional strains or new events. The stressful event of job loss, to illustrate, can contribute to multiple chronic hardships, such as financial strain and marital conflict

(Pearlin et al., 1981). Similarly, marital conflict that eventuates in divorce represents a situation where what was probably a chronic stressor of some duration leads to an event, the divorce (Birditt, Brown, Orbuch, & McIlvane, 2010). For at least one of the divorced pair, there is a good chance that the event, begotten by chronic conflict, may then give rise to additional stressors, such as social isolation or economic hardships and burdens associated with being solely responsible for the care of dependent children (Pearlin & Johnson, 1977). As these illustrations suggest, stress proliferation may involve a series of stressors, where one or more stressors follow on the heels of a prior stressor.

Proliferation may also be observed as entailing the lateral spread of stressful problems across roles. Sometimes identified as "spillover," this form of proliferation can be observed, for example, when stressful job conditions lead to a greater work-family conflict (Wallace, 2005; Wethington, 2000). Where spillover occurs, there is an increased chance that what originated as a problem of the individual in the workplace is now extended to involve marital problems (Pearlin & McCall, 1990). Lateral proliferation may also be seen in situations where an individual's stressful experiences, whatever they might be, become a source of stress for others having a close relationship with the individual. Such situations have been described as the cost of caring (Kessler & McLeod, 1984). The occurrence of this type of lateral proliferation and its bearing on mental health have been observed in an intergenerational study by Milkie, Bierman, and Schieman (2008). These researchers showed that adversities faced by adult offspring tend to become the health-related stressors for their elderly parents, particularly in African-American families.

Attention to the proliferation of stressors can potentially yield a picture of people's significant stressful experiences over the course of their lives. To illustrate, analysis of longitudinal data has revealed how health disparities that become apparent in middle and late life may have originated in conditions and experiences that existed much earlier in the life course (e.g., Green et al., 2010; Kahn & Pearlin, 2006; Mensah & Hobcraft, 2008; Springer, Sheridan, Kuo, & Carnes, 2007; Warner & Hayward, 2006). Thus, the psychological well-being and morbidity of people in mid- and late life may be traced as far back as the statuses of their parents and conditions of hardship that existed in their households of origin at the time of their births. In some instances, then, the mental health of people in late life may reach back to conditions that were not of their own making, nor within the sphere of their control (McLeod, 2003; Wickrama, Conger, & Abraham, 2005). Consequently, it is often appropriate for research on stress and well-being to think in terms of causal chains that can stretch over substantial spans of time (e.g., Bierman & Pearlin, 2012; Wickrama, Conger, Wallace, & Elder, 2003). By and large, there is ample evidence indicating that we cannot rely exclusively on a recent event or current strain to identify fully the reasons for contemporary status-related differences in well-being. Indeed, to understand recent negative events and chronic strains, it might be necessary to examine whether they are the proliferated products of stressors that were operant in decades past (e.g., Horwitz, Widom, McLaughlin, & White, 2001; Pudrovska, Schieman, Pearlin, & Nguyen, 2005).

As we have emphasized above, status placement may be entwined with each of the components of the stress process. It should be recognized that this is no less the case with secondary stressors than with other components. For example, it can easily be understood that if one enjoys the advantages of an extended education and the possession of specialized occupational skills, she or he will not be exposed to the same proliferated consequences of job loss as one with limited education and highly interchangeable job skills. In turn, the mental health of one whose life becomes embedded in a constellation of secondary stressors resulting from a job loss is likely to be more harmed than that of a person free of secondary adversities. Thus, social statuses may modify the extent to which a primary stressor begets additional stressors, thereby altering the effects of the primary stressor on mental health. Once more, then, we can appreciate the critical influence of status placement, both as an antecedent to stressors and as a condition that can modify the effects of stressors on mental health. There is no doubt that the systematic inclusion of potential secondary stressors in longitudinal studies of the stress process can substantially add to our understanding of the connections between status placements and health outcomes.

Resources and Their Mediating/Moderating Functions

From the earliest times of stress research by social and behavioral scientists, it was observed that people differ considerably in the ways and extent to which their well-being is affected by exposure to a stressor. Indeed, there has been as much, if not more, effort to explain the differences in the consequences of stressors as to identify stressors and their sources. We suggested above that status-based differences in the patterns and extent of proliferation can be viewed as one explanation for the differences in the mental health effects of stressors. However, the mainstream of research aimed at accounting for the differences in responses to the same stressor has focused on what collectively can be referred to as *resources.* Simply described, personal resources are the qualities that are capable of influencing the *effects* of stressors on people's mental health. Among the resources that have often been shown to have this capability are coping, social support, and mastery or personal control, each of which often varies with one's social and economic status, as discussed below. Before discussing each of them below, it is first useful to describe briefly how resources may function as both mediators and moderators in the stress process.

In mediation, resources may be diminished or elevated by exposure to stressors and, in turn, exert a commensurate influence on mental health. Mediators are thus related both to the stressors from which they are created and to mental health outcomes. Conversely, moderators alter the relationship between stress and mental health, helping to protect people from the effects of stressors or leaving them more vulnerable to their deleterious effects. What makes the distinction between mediators and moderators somewhat confusing is the fact that the same resource may serve both functions. For example, Pudrovska and colleagues (Pudrovska et al., 2005) found that mastery helps to explain the effects of prolonged economic strain among older adults on depression by showing that economic strain depletes mastery, and reduced levels of mastery, in turn, lead to greater levels of depression. Thus, mediators are treated as pathways through which the effects of stressors on mental health can be traced. In addition to this explanatory function, though, Pudrovska et al. also found that higher levels of mastery weaken the relationship between economic strain and depression. Mastery therefore also acts as a moderator by preventing the deleterious effects of stress on mental health. Unlike mediators, moderators are treated as qualities which do not *directly* influence mental health, but, instead, influence the impact of the stressor on the outcome. Resources, such as mastery, may serve mediating *and* moderating functions, both explaining the mental health effects of a stressor and modifying the relationship between the stressor and a mental health outcome. The following discussion mainly focuses on the moderating functions of resources. That is, although resources may be seen as having the potential either to explain or to modify the effects of stress, we shall be concerned mainly with their ability to constrain the stressful consequences of stressors.

Coping

Coping refers to a behavioral or cognitive response to a stressor that helps to prevent or allay the harm otherwise caused by the stressor (Folkman & Lazarus, 1980; Pearlin & Schooler, 1978). The protective functions of coping include avoiding or eliminating the stressor, containing the proliferation of secondary stressors, perceptually altering the meaning of the situation in a manner that neutralizes its stress-inducing character, and keeping its emotional consequences within manageable bounds (Pearlin & Aneshensel, 1986; Pearlin & Schooler, 1978). The term coping implies effectiveness, but actions undertaken to curtail a stressor or its impact may inadvertently exacerbate the situation or intensify its mental health impact. For instance, avoidance strategies generally have been linked to increased distress, although they can be successful for coping with short-term uncontrollable stressors; in contrast, approach-oriented coping strategies have been linked to positive psychological outcomes in general (Taylor & Stanton, 2007).

No resource has a track record of inquiry longer than that of coping. It probably also has more issues and questions surrounding it than found with other frequently investigated moderators. Some of these issues have been dealt with elsewhere and need not be repeated in detail here (Pearlin, 1991). From a sociological vantage point, a major shortcoming of much of the research into coping is the insufficient attention to its possible social aspects. For example, little attention is given to possible differences in coping repertoires among groups differing in social and economic status, treating these differences instead as reflecting the personalities and dispositions of individuals. Research on coping also typically treats individuals' coping as though it occurs in an interpersonal vacuum, over-looking the possible effects of one person's coping behavior on the mental health of others with whom the individual interacts within relevant role sets. To take a hypothetical illustration, an individual may cope in a manner that eases his or her distress but intensifies that of the individual's spouse. Moreover, there has been little attention to how coping and its effectiveness may vary with stressors that arise in different social contexts. Thus, there is evidence that coping is more effective in moderating the inter-personal problems that arise within the family and informal social relationships than stressors found within formal organizations, such as those experienced in the work place (Pearlin & Schooler, 1978). One implication that can be drawn from this is that coping with stressors in organizations that are structured along lines of authority and impersonal rules and practices may be more effective when done collectively than when attempted by individuals. A somewhat different shortcoming of coping research, finally, is its failure to consider how repertoires might change as people traverse the life course. Consequently, little is known either of how coping strategies change over time as they are put through a trial and error process or of how coping repertoires are altered by the ebbing of old problems and the emergence of new ones in the aging process. This brief and incomplete sketch of coping should not be interpreted to mean that sociologists have no meaningful part to play in research into coping. To the contrary, it means that our understanding of coping and its moderating functions could be substantially enhanced by an expanded inclusion of sociological perspectives in its study.

Social Support

Social scientists hardly need encouragement to observe the moderating functions of social support, for these moderating functions have an established and extensive history of research in stress and mental health (see Chap. 17). House and Kahn (1985) identify three general types of support: emotional, informational, and instrumental. Within this threefold distinction, most definitions of social support include the satisfaction by others of one's needs for affection, esteem, identity, security, and assistance (Cobb, 1976; Thoits, 1982). Social support, especially emotional or perceived support, is inversely related to diverse forms of psychological disorder (Bertera, 2005; Cairney, Corna, Veldhuizen, Kurdyak, & Streiner, 2008; Lincoln, 2008; Thoits, 2011). However, longitudinal studies demonstrate that social support can have a reciprocal relationship with psychological disorder; social support not only protects against disorder, but social support may also decrease among persons with psychological disorders (Aneshensel & Huba, 1984; Gracia & Herrero, 2004; Stice, Ragan, & Randall, 2004; Turner, 1981). This suggests that mental health problems can interfere with the effectiveness and continuity of social support.

As with the other components and subcomponents of the stress process, we are reminded by the extensive literature on social support that as knowledge accrues, so, too, does recognition of the questions that are as yet incompletely answered. Although it is well established that social support possesses uplifting and protective powers, it is not entirely clear how these powers are exercised. One possibility concerns the construct of *mattering* (Rosenberg & McCullough, 1981), the sense that one's welfare is of importance to a significant other. Mattering is likely an inherent by-product of social support because indications that one is a significant person to others are nurtured by interaction that

promotes a sense of belonging, identity, and commitment (Taylor & Turner, 2001). A sense that one is needed and valued is in turn likely to be particularly critical during times of hardship and stress. Another plausible reason for the efficacy of social support is its *legitimating functions*. That is, support often gives to the recipient the "right" to be distressed by some perceived stressor or other, conveying assurance that the distress that is felt is a reasonable and acceptable response to the stressor provoking the response. It helps to place the problem with the stressful circumstance, not with a defect within the person. Thoits (2011) further hypothesizes a number of social psychological reasons for the efficacy of social support for mental health, including social influence/social comparison, social control, self-esteem, mastery, belonging and companionship, and perceived support availability. However, as Thoits points out, these hypothesized mechanisms await rigorous empirical test, an important item for future studies.

For some people, support is easily available and salutary; however, even when it is available, it is not always utilized nor does it always help to ease the effects of stressors (Rook, 1984). For example, in a qualitative study of the spillover of job problems into the household (Pearlin & McCall, 1990), some wives reported occasions where their husbands were sullenly silent about the problems they experienced at their workplaces. These reports suggest that the husbands interpreted proffered support as an affront to their ability to handle their own problems. But probably, failed support is more often a result of the donors' style of giving it, such as belittling the significance of the problems, judging that the level of distress is not warranted by the seriousness of the stressor, jumping in with advice that is inappropriate to the nature of the problem, or preempting the recipient role by presenting a litany of the donor's own problems. Moreover, the negative aspects of donor-recipient relationships may outweigh the mental health benefits of the positive aspects of relationships, as suggested by research showing that when the mental health consequences of positive and negative social exchanges are considered independently, negative social exchanges have more consistent relationships with mental health than the positive aspects (Newsom, Nishishiba, Morgan, & Rook, 2003). Obviously, exploration of the reasons for failed support attempts also deserves a place on the agenda for future research.

Mastery

Along with coping and social support, aspects of the self-concept are repeatedly found to function as moderators in the stress process. Outstanding among these is *mastery*, which pertains to individuals' self-perception of their ability to control the exigencies that may confront them (Pearlin & Schooler, 1978). Consistent with other major moderators, mastery stands in an inverse relationship to indicators of socioeconomic status (e.g., Schieman, Nguyen & Elliott, 2003). This association has been attributed to class-based opportunities and achievements (Pearlin & Radabaugh, 1976), including such lower social class exigencies as the inability to achieve one's ends, inadequate resources and opportunities, and restricted alternatives (Ross & Mirowsky, 1989), as well as to the association between education and jobs that are challenging, interesting, and enriching (Schieman & Plickert, 2008). Thus, a confident sense of personal control is less an expression of hubris than the consequence of having a history of incumbency in privileged statuses where one both faced fewer hardships and had more resources for dealing with those that do arise (Conger, Williams, Little, Masyn, & Shebloski, 2009; Pearlin, Nguyen, Schieman, & Milkie, 2007).

Although it is thoroughly established that mastery is capable of assuaging the health effects of stressors, as with other moderators, the reasons are not entirely clear. There is a pair of possible explanations. First, it is quite possible that stressors that are otherwise experienced as severe are perceived as being less ominous by those armed with an elevated sense of mastery. Thus, the sense of personal control helps to perceptually neutralize the level of threat posed by stressors. Second, and related to

the first, the diminished threat leaves one with greater confidence that the stressor is within the range of their abilities to control it, making it more likely that individuals will be motivated to attempt to ameliorate or address the problems in their lives, rather than deny or avoid these problems (Ben-Zur, 2002; Caplan & Schooler, 2007).

We have emphasized thus far the conceptual distinctiveness of the three moderators and the capacity of each to buffer the negative effects of stressors on mental health. It is useful, however, to look beyond their separate moderating functions and consider the possible joint effects of the multiple moderators. In addition to the benefits of mastery for efficacious coping, personal control has also been shown to be related to social support (Gadalla, 2009; Schieman & Meersman, 2004), with some research suggesting that mastery may be both an influence on and a consequence of social support (Green & Rodgers, 2001). These findings indicate that individuals equipped with high levels of resources may be able to pool them in the course of experiencing stress. It also suggests that when one resource is ineffective, they are able to utilize the others. The study of the buffering effects of resources might profitably examine how multiple resources operate as buffers, both independently and in tandem, as a means of functioning as an interlocking matrix of resources. Although researchers have frequently examined how a specific resource or type of resource prevents the deleterious effects of stressors on mental health, the benefits that advantaged social statuses provide for mental health are likely derived from their provision of multiple resources and their joint effects. Research that does not take this multiplicity into account may be left with an incomplete depiction of the ways that social statuses provide a foundation for the development of moderating resources.

In sum, there is abundant evidence that coping, social support, and mastery are substantially capable of moderating the impact of stressors on mental health, thereby accounting in part for the repeated finding that exposure to the same or similar stressors does not exert a uniform effect on the mental health of everyone. Paradoxically, the more we are able to observe the protective functions of these resources, the more we are left with explanatory gaps in understanding why they are effective as buffers. The ways in which these resources combine to affect mental health are also largely unexplored. In general, we need to be better informed as to which resources serve as effective moderators of what kinds of stressors, for what kinds of people, and under what kinds of conditions. These matters constitute a major part of future agenda of research into the buffering role of psychosocial resources.

Belief Systems, Values, and Meaning

Acknowledgment should be given to the part played in the stress process by belief systems, values, and meanings and their interrelationships. Belief systems, which are conceptually on a different level than coping, social support, and mastery, have their own potential moderating functions. By belief systems, we refer to the comprehensive understandings people acquire that help them understand their surrounding worlds, the forces that organize and guide it, and the effect these forces exert on one's more immediate personal world—especially its adversities. Not everyone subscribes to a widely embracing belief system, by any means. Many are disposed to look elsewhere for understanding the demands and hardships that they bear: to luck or chance, to the strengths and flaws of those with whom they must interact, to the abilities or misguidance of their leaders, or to intractable fate. By contrast, people who have little tolerance for uncertainty, randomness, or particularistic explanations may be drawn to a widely shared belief that their life circumstances, as well as those of others, are the outgrowth of orderly forces. Even when beliefs may not be empirically verifiable, they may still be looked to for explanations for what people experience and for what they must do to avoid or overcome adversity.

Whereas coping repertoires, social support, or self-concepts of mastery are usually developed from one's own experiences and from interactions with those in one's social network, belief systems are

anchored in institutional contexts and organized religion prominent among them. In calling on supernatural entities for assistance or adhering to various prescribed rituals, for example, religion offers a variety of ways to avoid, eliminate, or alleviate stressors or to lessen the prospects of being destined to an eternally dark afterlife. Because of the promises of religious interventions, it is understandable that its purported functions within the stress process have come under close attention by stress researchers in recent decades (see Chap. 22), but the evidence regarding the moderating efficacy of religious beliefs and practices is thus far mixed. What is clear is that the dependence on religious beliefs and practices and their efficacy as moderators, if any, will vary with the social and economic characteristics of the participants. Given the scope and intensity of devotion to religious institutions and their teachings, continued attention to religion within the framework of the stress process is certainly warranted.

Belief systems are also hosted by institutions other than religious, most notably by political organizations and movements. Although occasionally religiously and politically inspired beliefs may conflict with one another, they are alike insofar as they both provide comprehensive and integrated explanations of the circumstances of people's lives. In effect, political institutions and movements place the hardships people face—as well as many of the good things life offers—as orderly manifestation of the powers that control and guide social and economic life. Ideologies treat stressors not as random and capricious circumstances, but as the workings of prevailing, but often hidden, man-made forces that reach out to affect the lives of multitudes. Of course, people may give up or otherwise change their beliefs, religious or political, but when beliefs are fostered by institutions, these beliefs can be deeply inculcated in the commitments and motivations of their adherents. At the extreme, people may be willing to die or kill in defense or advancement of their beliefs.

We view values and meaning as closely related to each other and to belief systems. Values, which may be embedded in belief systems, refer to the hierarchical order of importance attributed to our various roles, actions, relationships, goals, and means of their attainment. In general, values arm us with the criteria by which we recognize desiderata and thus guide our decisions and actions. Values can differ widely with social and economical stratification, reflected in such matters as the valuation of education, financial success, life style, and the emphasis given to different aspects of child rearing (Hyman, 1953; Pearlin, 1988; Pearlin & Kohn, 1966; Simon, 1997). The power and impact of a stressor on well-being may be affected by the extent to which it intrudes on the prized values of the persons exposed to the stressors. A child who drops out of school before receiving a high school diploma, to illustrate, may create more anguish among parents who prize education than among parents more indifferent to educational achievement. The influence of a stressor on individuals' mental health, therefore, may vary with whether the stressor is irrelevant to one's values or, at the other extreme, is in violation of values of central importance.

Meaning is a multi-faceted construct and, correspondingly, more difficult to define than are values. In general, meaning can be thought of as the understandings and interpretations that can be made of life and its exigencies. Thus, people may implicitly ask whether there are circumstantial aspects of their lives that should concern them and, if so, what is the nature of the circumstance. Such questions may involve whether it is an assault on one's identity or on the groups of which one is a member, whether it is a barrier to aspirations, whether it places loved ones at risk, and so on. Essentially, we view meanings as derived from beliefs and values; that is, they represent the amalgam of subjective understandings with which people are left after the challenging circumstances of their lives are evaluated in relation to one's beliefs and values.

Much needs to be done to conceptually specify these moderators and to establish credible measures of them; nevertheless, we propose that these are promising targets in a search for moderators that go beyond personal resources. The study of relevant beliefs and values and their influence in molding subjective understandings of life circumstances is potentially a sociologically rich way to identify additional conditions that further explicate the frequent finding that the same circumstances can have appreciably different consequences for mental health.

Mental Health Outcomes

The selection of outcomes in the study of the stress process is of critical importance because these outcomes calibrate the injurious effect of stressors and the extent to which psychosocial resources and subjective dispositions help to protect people from these effects. As with each of the other components of the stress process, there are both current concerns and future possibilities surrounding the selection and treatment of outcomes that are relevant to sociological inquiry. Several chapters address the nature of mental health outcomes: Chap. 3 discusses the psychiatric view of mental illness, Chap. 6 articulates their sociological interpretations, and Chap. 7 presents a review of measures. Here we identify some issues that should be considered in selecting outcomes for sociological research on the stress process.

Among the outcomes most typically employed by inquiries into the stress process are elements of distress, such as anxiety, anger, and depression—the latter being by far the most commonly studied outcome in the sociological studies of mental health. It is no accident that indicators of distress have been the mainstays of social research, for they have proven to be quickly responsive to a wide variety of social, economic, and experiential conditions. Over the decades, these indicators of distress, especially that of depression, have proven to be sensitive and reliable barometers of the socially rooted stressors people encounter as they enact their various social roles and engage in their various relationships.

Yet, it has been shown convincingly that each of these outcomes by itself falls short of revealing fully the mental health effects of stressors. This is because different social groups often manifest the distress resulting from stressors in different ways. As a result, if but a single-outcome indicator is considered, those who respond to a stressful experience by manifesting some other forms of distress are mistakenly treated as though they are unaffected by the stressor (Aneshensel, Rutter, & Lachenbruch, 1991). Equating the mental health effects of stress with a specific disorder that is prevalent in a particular social group may, therefore, bias estimates of the power of stressors and of group differences in stress reactivity. This issue is less salient if we wish to identify the antecedents of a particular disorder, such as depression, but it is critical in stress research whose goal is to highlight the mental health consequences of social arrangements (Aneshensel, 2005). Although sociological researchers are often aware of this problem, single-outcome studies continue to predominate, and only some researchers include multiple outcomes in addition to depression, typically alcohol misuse and anger (e.g., Horwitz et al., 2001; Schieman & Meersman, 2004; Williams, 2003).

An additional long-standing issue revolves around the question as to whether outcomes should be measured by continuous scales of symptoms, as is often the practice in social research, or by diagnostic categories, as is the usual practice in psychiatry (see Chap. 7). The use of diagnostic categories in sociological research can be particularly problematic because psychiatric diagnoses tend to regard expectable responses to disruptive stressors as dysfunctions within the individual (Horwitz, 2007). Social researchers, by contrast, may look at the same responses as a normal reaction to severe stressors (see Chap. 6). The failure to make these distinctions conflates normal sadness that arises after the loss of a loved one, by way of example, with true depressive disorders that are not proportionately grounded in social contexts (Horwitz & Wakefield, 2007). Moreover, by ignoring the distinction between distress and disorder, we run the risk of viewing emotional responses to social and economic hardships as diseases, thus medicalizing human suffering and obfuscating its social origins (Mirowsky & Ross, 2002).

The question of whether to use dimensional or diagnostic measures presents a quandary because the inclusion of outcomes that are inherently nonresponsive to stress will produce smaller estimates of the effect of stress on mental health, but excluding such disorders hampers one's ability to speak to the effects of stressors on mental health in its broadest sense. Although there is no consensus on this issue or how best to resolve it, ultimately the selection of a measure is best decided by how closely the conceptualization of the outcome corresponds to the research question (Aneshensel, 2002). These issues are likely to become more prominent in the future, though, because revisions being planned for the Diagnostic and Statistical Manual of Mental Disorders place a greater emphasis on dimensional assessment (see Chaps. 3 and 7).

Discussion

The stress process perspective for many years has functioned as a conceptual guide to the sociological study of stress and health. Over the years, it has helped to assemble evidence that leaves no doubt that there are numerous eventful disruptions and chronic hardships that are inimical to health, many of them disproportionately experienced by those in disadvantaged statuses. The major components of the paradigm have remained largely unchanged since its initial construction. Thus, stressors, moderators/mediators, and outcomes continue to stand as its major conceptual underpinnings. Moreover, as we have emphasized throughout this chapter, each of the components is related to status placement within major social institutions, a fact that establishes the study of mental health firmly within the larger discipline of sociology. Yet, the continuity and simplicity of the paradigm are both somewhat deceptive. Each of its components subsumes multiple elements that have been identified and refined over the years, and the dense web of interrelationships among these elements has been intensively explored. Throughout this chapter, we have sought to identify for future study additional stressors, moderators, and their interrelationships.

Research employing a stress process perspective has tended in the past to be aimed at the identification of specific stressors that have the capacity to undermine well-being. However, inquiries into stress proliferation, cumulative stress, and the continuities and discontinuities of stressors across the life course have brought greater awareness of the organization and interconnections of different stressors within and across time and within and across major institutional and ecological contexts, such as family, occupation, economy, and neighborhood. As a result of this work, we have a better grasp of how stressors can generate other stressors, how there can be a piling up of simultaneously operant stressors, and how stressors and their health consequences observed in late life might be the result of a chain of stressors that originated much earlier and helped to shape life-course trajectories. Moreover, it has been shown that the distribution of multiple stressors stems from the same structural disadvantages that often underlie the emergence of single stressors. It can also be noted that the presence of multiple stressors provides researchers the opportunity to examine the nature of their joint effects. Although little attention has been given to this matter, it is possible that where multiple stressors simultaneously impinge on the lives of people, they might either exacerbate the mental health consequences of a specific stressor or, alternatively, weaken these effects because the individual stressor becomes less salient when multiple stressors are operant. Attention to the way that status-related stressors co-occur and interact will give a more complete picture of the ways that structural arrangements influence individual psychological well-being.

Among the plethora of potentially stressful conditions are those that do not exist at the present time but are anticipated to arise in the future. We refer to these as anticipatory stressors, which are probably experienced with greater frequency than is recognized. Apprehension of job loss is one of the more outstanding among these kinds of stressors because work and its financial rewards are instrumentally crucial to other areas of social life. The risk of job loss can raise the level of trepidation that if and when loss is transformed from an event that *might* occur to one that *has* occurred, the disruptions that can follow reach into every corner of one's life. And, of course, this is an anticipatory stressor to which people in the lower occupational rungs are especially at risk, along with racial and ethnic minorities and older workers. The sheer numbers of people who experience this stressor during periods of economic downturns should place it in the line of vision of social stress researchers. However, despite its probable prevalence and importance to mental health, it is certainly not the only anticipatory stressor of serious consequence. To choose but one of many examples, we can posit that residents of disordered neighborhoods who have thus far lived safely may nevertheless exhibit considerable concern about their future personal safety (e.g., Ross & Jang, 2000).

Although it is difficult to imagine that adults living in contemporary societies would be totally able to avoid exposure to stressors, it is equally difficult to expect that all those who are exposed will suffer

damage to their health. There are multiple conditions that enable people to escape such damage, among them is the fact that many stressors encountered in daily life may be highly transient and, despite being temporarily stressful, are relatively impotent with regard to their health impact. There are also instances where serious and enduring stressors do not impose an appreciable tax on health. Traditionally, such instances have usually been explained by the possession of moderators, that is, the social and personal resources that can be mobilized to blunt or prevent the negative impact of untoward events or hardships. Progress in identifying protective moderators, which has largely centered on coping, social support, and personal control, has been credible, but considerable work lies ahead in identifying the reasons for and the conditions under which they are effective.

Looking beyond the personal resources, we have suggested that beliefs, values, and meaning may also function as moderators in the stress process. These are closely related constructs that may be activated as people judge and interpret the critical circumstances they confront. In effect, beliefs and values serve as frames of reference by which people "make sense" of these circumstances. Whether or not the sense that is made of impinging circumstances signals threat to one's interests represents the stress-related meaning they have for individuals. Beliefs and values and the meaning to which they contribute have multiple sources, but those of particular sociological relevance are anchored both in people's social and economic statuses and the institutional and cultural contexts in which their lives are spent. Along with other issues to which we have called attention, the functions of these three constructs deserve a larger place in research into the stress process.

The final component of the stress process examined here concerns outcomes. The mainstays employed in social stress research have been symptoms of distress and problematic behavior, such as alcohol and substance abuse. The ability of these symptoms to reveal the importance of status-related stressors to mental health cannot be exaggerated. However, it should not be thought that the stress process necessarily ends with outcomes of distress. To the contrary, it is likely that tenacious distress may lead on to an extension of the process that reaches into and interferes with the normal functioning of physiological substrata of the organism and to illness and disease. A future interdisciplinary mission involves the joining of sociological research with its emphasis on status-related distress and research into the connections between symptoms of distress and physical well-being. Until then, it is necessary to assume that distress alone yields an incomplete picture of the health effects of the social stress process.

Whatever its future tasks may be, research into the stress process over the past several decades has led to a considerable forward movement. Yet, it remains a work in progress, for each step forward raises new questions and challenges. However, the work that lies ahead should not obscure a core message that can be drawn from what has already been learned from the sociology of mental health and its stress process framework; namely, when we look at the etiology of mental health, we are able to see a convincing example of how personal problems may often have their beginnings in social problems. This message needs to be underscored and repeated, for when the political climate of society shifts to the right, a contrary message tends to arise, namely, that social problems start as personal problems. We can assert that what has been learned and what will be learned in the future will continue to go directly against the grain of such a claim. Personal problems can be and often are reflections of structures and contexts in which people lead their lives.

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