Stress, Coping, and Social Support Processes: Where Are We? What Next?*

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Journal of Health and Social Behavior 1995, (Extra Issue):53–79

I review existing knowledge, unanswered questions, and new directions in research on stress, coping resource, coping strategies, and social support processes. New directions in research on stressors include examining the differing impacts of stress across a range of physical and mental health outcomes, the "carry-overs" of stress from one role domain or stage of life into another, the benefits derived from negative experiences, and the determinants of the meaning of stressors. Although a sense of personal control and perceived social support influence health and mental health both directly and as stress buffers, the theoretical mechanisms through which they do so still require elaboration and testing. New work suggests that coping flexibility and structural constraints on individuals' coping efforts may be important to pursue. Promising new directions in social support research include studies of the negative effects of social relationships and of support giving, mutual coping and support-giving dynamics, optimal "matches" between individuals' needs and support received, and properties of groups which can provide a sense of social support. Qualitative comparative analysis, optimal matching analysis, and event-structure analysis are new techniques which may help advance research in these broad topic areas. To enhance the effectiveness of coping and social support interventions, intervening mechanisms need to be better understood. Nevertheless, the policy implications of stress research are clear and are important given current interest in health care reform in the United States.

Several decades ago, Selye (1956) focused research attention on noxious stressors and laboratory animals' patterned physiological changes in reaction to them. The systematic study of stress in humans began to flourish some years later with the publication of Holmes and Rahe's (1967) checklist of major life changes and their associated readjustment weights. Literally thousands of articles on the negative physical and mental health consequences of major life events were published subsequently. Since the late 1970s, a variety of new methods of measuring stress have been developed and refined (e.g., Bolger et al. 1989a; Brown and Harris 1978, 1989; Dohrenwend et al. 1993; Pearlin and Schooler 1978; Wheaton 1991; Zautra, Guarnaccia, and Dohrenwend 1986), and stress theory has been elaborated to incorporate factors which moderate or buffer the effects of stress on physical and mental health. Each of these moderating factors—coping resources, coping strategies, and social support—now has its own thriving literature.

A thorough review of each of these topic areas, including measurement and methodological problems, is beyond the scope of this paper. Since 1985, over 3,000 papers on "stress and health" have been published in psychological and sociological journals alone. I will instead summarize briefly what we know with some certainty (drawing heavily on reviews and key articles), point to unanswered questions, and discuss promising new directions in research on

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stressors, coping resources, coping strategies, and social support, taking each broad topic in turn.

The reader should be aware that much of the psychosocial literature on "stress and health" actually focuses on *mental* health conditions as outcomes. I will note wherever mental health findings also apply to physical health outcomes in the psychosocial literature. Because I have not delved into the medical or epidemiological journals where additional physical health findings are amassed and because my own expertise is in mental health, this overview and commentary will be heavily biased toward that subject area.

STRESSORS: EVENTS AND STRAINS

Definitions. "Stress" or "stressor" refers to any environmental, social, or internal demand which requires the individual to readjust his/her usual behavior patterns (Holmes and Rahe 1967). The term "stress reaction" refers to the state of physiological or emotional arousal that usually, but not inevitably, results from the perception of stress or demand. Theory generally holds that stressors motivate efforts to cope with behavioral demands *and* with the emotional reactions that are usually evoked by them (Lazarus and Folkman 1984). As stressors accumulate, individuals' abilities to cope or readjust can be overtaxed, depleting their physical or psychological resources, in turn increasing the probability that illness, injury, or disease or that psychological distress or disorder will follow (Brown and Harris 1978; Dohrenwend and Dohrenwend 1974; Lazarus and Folkman 1984; Pearlin 1989).

Three major forms of stressors have been investigated in the literature: life events, chronic strains, and daily hassles. Life events are acute changes which require major behavioral readjustments within a relatively short period of time (e.g., birth of first child, divorce). Chronic strains are persistent or recurrent demands which require readjustments over prolonged periods of time (e.g., disabling injury, poverty, marital problems). Hassles (and uplifts) are mini-events which require small behavioral readjustments during the course of a day (e.g., traffic jams, unexpected visitors, having a good meal). Because most research attention has been paid to the effects of life events and chronic strains on physical and mental health, I will concentrate on these stressors in this overview.[1]

Major Findings and Gaps. It is now well-established that one or more major negative life events experienced during a 6 to 12 month period predict subsequent physical morbidity, mortality, symptoms of psychological distress, and psychiatric disorder (Cohen and Williamson 1991; Coyne and Downey 1991; Creed 1985; Kessler, Price, and Wortman 1985; Tausig 1986; Thoits 1983). It is relevant to note that Homes and Rahe (1967) originally proposed that the total amount of life change in a given period of time would overtax the physical resources of individuals and leave them vulnerable to illness or injury. With respect to mental health, Brown and Harris (1978) later argued that only negative changes (rather than all changes, positive and negative) would overtax the person's psychological resources and increase the risk of emotional disorder. Subsequent research consistently demonstrated that events that were negative or threatening *and* major or highly disruptive precipitated psychological distress and more serious forms of psychiatric disorder (especially anxiety and depressive disorders); positive or benign events and minor events were only weakly related to psychological disturbance (Thoits 1983). The physical health literature generally has followed the lead of the mental health literature, and focused on the effects of negative events rather than total events on health, without numerous comparisons of the relative predictive utility of negative versus total events (e.g., Cohen and Williamson 1991; Creed 1985). Although it appears that negative events are somewhat more strongly related than total events to disease and physical symptoms (e.g., Lin and Ensel 1989), further comparisons are warranted in the physical health domain.

Chronic strains or difficulties have been less frequently studied than life events, but the literature consistently shows that strains are also damaging to both physical and mental health (e.g., Avison and Turner 1988; Brown and Harris 1978, 1989; House et al. 1979, 1986; Liem and Liem 1978; Newmann 1986; Pearlin and Johnson 1977; Pearlin et al. 1981; Verbrugge 1989; Wheaton 1991). Physical health outcomes are most often examined as consequences of

chronic unemployment or persistent job strains, while mental health outcomes are studied as consequences of a much wider array of chronic difficulties (e.g., marital, parental, occupational, financial). Thus, we know much less about the impacts of marital and parental strains on subsequent illness, injury, and disease than we do about the impacts of strains that derive from employment (and its lack or loss).

Findings differ regarding whether negative life events or chronic strains are more predictive of physical and mental health problems (e.g., Avison and Turner 1988; Billings and Moos 1984; Brown and Harris 1978; Eckenrode 1984; Wheaton 1991). Contrasting findings may be due to the ways in which events and strains have been measured across studies (Eckenrode 1984; Kessler et al. 1985). However, resolving the question of relative importance is probably less useful than better understanding the ways in which negative events and ongoing strains together influence physical and mental well-being. A number of studies show that negative life events produce significant increases in emotional problems only when the events themselves generate persistent or recurrent strains (e.g., Aneshensel 1992; Avison 1993; Gerstel, Riessman, and Rosenfield 1985; Pearlin et al. 1981; Umberson, Wortman, and Kessler 1992). Others indicate that negative events which occur in a domain that has been continuously stressful or conflicted can produce an onset of psychological symptoms (e.g., Brown, Bifulco, and Harris 1987). Still others show that losing a role which has been a source of ongoing difficulty (e.g., divorce, job loss) relieves, rather than exacerbates, psychological symptoms (e.g., Wheaton 1990a). These studies point to a need for further examination not only of the joint consequences of events and strains but of the consequences of specific event and strain *sequences*, a topic to which I will return below. I should note that these new studies of event/strain combinations have primarily examined mental health outcomes; whether similar findings might emerge for physical health outcomes remains an unanswered question. Physical health researchers seem much less interested in the *configurations* of specific events or chronic strains which might predict disease onset or susceptibility to infection (e.g., Rodin and Salovey 1989; Cohen and Williamson 1991).

Although most investigators have supposed that lower status, disadvantaged groups experience more negative events and ongoing strains in their lives, the evidence indicates that only ongoing strains are consistently and inversely distributed by social status (e.g., Brown and Harris 1978; McLeod and Kessler 1990; Pearlin and Johnson 1977; Pearlin and Lieberman 1978; Turner, Wheaton, and Lloyd 1995). Lower status persons are not always found to experience more undesirable events (e.g., Brown and Harris 1978; Eckenrode and Gore 1981; Lin, Dean, and Ensel 1986; Thoits 1982, 1984; Turner et al. 1995). The relationship between social status and life changes often depends on the types of events examined in a particular study (for example, whether events that can happen to members of one's social network are included). In general, people with many social roles are at risk of more personal losses and more network events than people with fewer social roles (Thoits 1987).[2]

Despite inconsistencies with respect to the relationship between social status and exposure to negative events, the stress literature indicates that members of disadvantaged social groups are especially vulnerable or emotionally reactive to stressors. When compared at similar levels or intensities of stress experience, women, the elderly, the unmarried, and those of lower socioeconomic status exhibit higher psychological distress or depression scores than their higher-status counterparts (Cronkite and Moos 1984; Kessler and Cleary 1980; Kessler and Essex 1982; McLeod and Kessler 1990; Pearlin and Johnson 1977; Thoits 1982, 1984, 1987; Turner and Noh 1983; Ulbrich, Warheit, and Zimmerman 1989; Wheaton 1982). However, disadvantaged groups are not *generally* vulnerable to all types of stress. When cumulative indices of events or strains are disaggregated into particular types of stressors (e.g., love loss events, income loss events, uncontrollable events, and so on), different groups appear to be vulnerable to specific subsets of stressors instead. Specifically, women seem to be more vulnerable to "network events" (events that happen to loved ones in their social networks), while men may be more vulnerable to financial and job-related stressors (Conger et al. 1993; Eckenrode and Gore 1981; Gore and Colten 1991; Kessler and McLeod 1984; Turner and Avison 1989; but see Aneshensel, Rutter, and Lachenbruch [1991] and Thoits [1987] for exceptions). It should be noted that most examinations of differential vulnerability have focused on mental health outcomes; whether social status and stressors interact similarly in

their effects on physical health outcomes remains unexplored. That results may differ for physical health is suggested by Aneshensel and her colleagues (1991), who show that sociodemographic differences in reactivity to stressors depend not only on the types of stress examined but on the specific disorders serving as outcome measures.

Examining the social distributions of stress experiences and the social variations in emotional reactivity to stressors begs an important prior question, one that has not been thoroughly addressed by sociologists theoretically or empirically: What are the social origins of stress? In a seminal piece, Pearlin (1989) located individuals' experiences of ongoing strains and negative events within their social roles which are, in turn, products of sociocultural stratification by gender, race, and social class (see also Riessman 1990). Mirowsky and Ross (1989) point to structural powerlessness, alienation, and lack of control, again consequences of the stratification system. Aneshensel (1992) argues that the occurrence of social stress is a predictable, perhaps inevitable, outcome of social organization, in particular, systematic discrimination and inequity.

Despite attributions of the origins of stress to large-scale social structures or processes, few investigators have attempted to examine the links between macrolevel factors and microlevel experiences, preferring to assess, for example, status variations in role strains, powerlessness, or lack of control at the individual level only. An exception to the rule is a research program conducted by Dooley and Catalano (1980, 1984a, 1984b; Catalano and Dooley 1983; Catalano, Dooley, and Jackson 1981). These researchers have linked contractions in the macrolevel economic system directly to individual experiences of unemployment, financial difficulties, psychological symptoms, and psychiatric help-seeking. It may be because we have lacked similar studies examining the relationship between *other* macro structures and micro experiences that stress research has been categorized as mere social psychology and less a part of mainstream sociology. Like the concept of "role," the stress construct provides a potentially valuable bridge linking large-scale organization and individual experience and action. It is also relevant that structurally-induced chronic strains and collective coping efforts in response to them have played an important role in explaining the impetus for social movements and social change in more general sociological theory and research (e.g., Griffin and Korstad, forthcoming; Killian 1984; Smelser 1963; Useem 1985). In my view, we need to show to sociologists in general the relevance of our stress process research (which has been conducted primarily at the individual level) to broader sociological questions of structural persistence *and* social change.

Promising New Directions: Multiple Outcomes. There are a number of promising new directions in research on stressors and their health effects. One trend has been prompted by Aneshensel's (Aneshensel et al. 1991) argument that we drastically underestimate the impacts of stress and limit our understanding of specificities in stress-disorder relationships by following the usual practice of examining only one health outcome at a time in stress studies (e.g., depression, myocardial infarction). Aneshensel and colleagues' demonstration that one disorder is not a proxy for all disorders has prompted investigators to examine a variety of outcomes in the same study (e.g., Dohrenwend et al. 1992; Conger et al. 1993; Kessler et al. 1989; Thoits 1994b). Interestingly, this practice has been more routine in the physical health literature, which often includes measures of anxiety and depression along with physical health indicators (e.g., Cohen and Williamson 1991; Creed 1985; Lin and Ensel 1989). Emerging from the physical health literature is a fairly consistent finding that stressors are linked to physical illness or medical treatment-seeking *through* depression, anxiety, or generalized distress.

Although findings are inevitably more complex, I believe that inconsistencies among outcomes and uncovered specificities in relationships will eventually lead us to more refined theory, or at least to different questions. For example, stress researchers have attempted unsuccessfully for years to explain women's consistently higher depression scores compared to men. In contrast, we have given minimal attention to men's consistently higher substance use scores compared to women. If depression and substance use are *alternative* ways of reacting to stressors, then perhaps we should not be asking what it is about women's experiences that make them more depressed than men. We might ask instead what kinds of stressors lead to one psychological response as opposed to another. If we can identify the key conditions, *then* we might ask whether those conditions are distributed differentially by social status or explore

whether alternative reactions to stressors are a product of differential socialization by social status.[3]

There is an additional reason for following Aneshensel's recommendation. I noted earlier that psychologists and sociologists have focused heavily on psychological outcomes (usually depression or psychological distress) in the stress, coping, and social support literatures. I believe that mental health researchers often presume that their findings can be safely generalized to physical health. But on a number of important issues, we simply have no information to warrant this. For example, we do not know whether members of lower status groups are *physically* more vulnerable to the effects of stressors than members of higher status groups, and we do not know whether specific coping efforts which ward off emotional distress also will ward off onsets of illness (or vice versa). There are good theoretical reasons to believe that the etiologies of chronic and infectious diseases differ from those of psychiatric ones (Cohen and Williamson 1991). Given such important gaps in the literature, it seems crucial to overcome our neglect of physical health consequences by analyzing physical *and* psychological dependent variables (as well as their interrelationships and comorbidity) within the same studies.

New Directions: Stress "Carry-over." Another promising new direction in research involves investigations of what might be called "carry-over" effects of stressors—specifically, carry-overs across persons, role domains, and stages of life. For example, using daily diary data collected from husbands and wives, Bolger and colleagues (1989a, 1989b) found that stresses at work (e.g., overloads, arguments) spill over to increase stresses at home and vice versa, and that one spouse's spillovers affected the other spouse. Related to this, a number of researchers have examined cross-role interactions between work stressors and marital stressors. Stressors in one role sometimes exacerbate the negative psychological effects of stressors in other roles (Bromet, Dew, and Parkinson 1990; Liem and Liem 1990; Menaghan 1991; Wheaton 1990b). Other researchers are examining the cross-generational effects of stress and strain, in particular the impacts of parents' stressors and/or depressive states on their children (Avison 1993; Coyne and Downey 1991; Menaghan 1991). New work in progress is exploring how events and strains in one stage of life can influence psychological well-being both in contiguous and much later life stages (Lin and Ensel 1993; Aneshensel and Gore 1991), including the negative consequences of childhood traumas (loss of parent, abuse, or neglect) for adult mental health (Coyne and Downey 1991; Kessler and Magee 1993; McLeod 1991; Turner et al. 1995; Wheaton 1991).

These "carry-over" studies are important for three reasons. First, they begin to capture some of the complexities of stress impacts that are familiar to us from personal experience but have long been neglected theoretically and empirically. Second, these studies begin to focus research attention on the consequences of particular *sequences* of experiences, both on a daily basis and over the much longer term (e.g., the life course). As a consequence, investigators may come to better understand the episodic, recurrent nature of some disorders, such as depression (Coyne and Downey 1991; Cronkite et al. 1993). Third, studies of longer-term consequences reintroduce the interesting possibility that although negative events and strains may be damaging in the short term, they may in the longer term prove beneficial (e.g., Elder 1974). I will briefly discuss recent developments in stress research related to these latter two implications.

New Directions: Stress Sequences. Earlier I mentioned that psychological distress is exacerbated when threatening events occur in a role domain which is already strained or conflicted (Brown et al. 1987). Psychological distress is ameliorated, however, when role loss occurs in an already stressful domain (Wheaton 1990a). I believe that these examinations of event and strain *combinations* are actually capturing the effects of particular event and strain *sequences*: ongoing strains followed by an acute threat in a role domain increase emotional upset while ongoing strains followed by role exit or role loss decrease upset. That the sequencing of experiences can matter importantly for mental health is also demonstrated by Jackson (1993), who examined the depression scores of men and women who acquired (and lost) marital, parental, and occupational roles in differing orders (controlling for the number and types of adult roles individuals held). White men and women who followed the statistically more frequent sequence of work, then marriage, then parenting were significantly less depressed than those who acquired these three roles in other sequences. Even the currently

divorced and unemployed were less depressed if they had previously acquired these roles in normative order. (Jackson reasoned that previous transitions influenced individuals' coping resources and experiences of role strain at the time of each subsequent transition.) In short, examining experiential sequences, including more extended sequences of stressors over the life course, may help specify further the conditions under which stressors damage mental (and possibly physical) health (Albrecht and Levy 1991).

New Directions: Positive Effects of Stress. As is frequently noted in the literature, negative life events do not necessarily have negative health or mental health consequences, at least over the long run. In part this is because individuals often actively solve the problems which confront them. Less frequently recognized by stress researchers, individuals also learn and grow from negative experiences, even from those that cannot be reversed or escaped. Riessman (1990) offers a compelling demonstration, drawing from in-depth interviews with divorced women and men. Although her interviewees were more depressed or more likely to drink to excess during and immediately after divorce, both men and women also described significant positive consequences which followed from their post-divorce adjustments. Women gained confidence in themselves and a stronger sense of control over their lives. Men acquired greater interpersonal skills and more willingness to self-disclose emotionally. Both sexes searched for and often found meaning and value in the divorce experience (see also Silver, Boon, and Stones 1983).

Along similar lines, Turner and Avison (1992) recently have drawn from crisis theory to argue that only unresolved negative events should have damaging psychological consequences. They define resolved events as experiences from which individuals are able to derive positive meaning for themselves and/or their futures. They showed that only events which were viewed by individuals as unresolved were associated with depression; resolved events were not. Similarly, work and love-relationship problems increased psychological symptoms only when individuals failed to solve them; successfully solved problems were unrelated to changes in symptoms (Thoits 1994b). These results add further support to Turner and Avison's (1992) argument that resolved or successfully solved life events should not be counted when estimating an individual's burden of stress.

Implicit in these studies is an important message which tends to be overlooked or, when acknowledged, often treated as a threat to validity in stress research: Individuals are activists on behalf of their own well-being (Thoits 1994b). That is, people purposefully engage in problem-solving and/or actively reconstructing the meaning of their life experiences in order to sustain their sense of self-worth and alleviate anxiety or tension. This observation has several implications. First, as noted earlier, not all negative events will have negative consequences. Individuals may consciously and deliberately bring about negative events (e.g., divorce, getting fired) to solve otherwise intractable problems. Thus, some supposedly "undesirable" events are not stressors but instead problem-solving acts.

A second implication is that individuals are changing and changeable and thus less predictable than we typically assume. If people in fact observe and learn from their experiences, then they can decide to bring about change in themselves or their lives (Kiecolt 1994). Childhood traumas and subsequent stressful life experiences in adolescence or early adulthood may actually result in improvements in physical or emotional well-being in later life stages, not because people have become inoculated by or inured to or even more adept at managing stressors, but because they have simply decided and then acted to change things for the better.

Third, because individuals are presumably motivated to protect and enhance their well-being, they may deliberately engineer positive events in their lives to counteract or counterbalance those aspects which are negative. Brown, Lemyre, and Bifulco (1992) have documented that "fresh start" and "relief" events can promote recovery from depression and anxiety; Kessler, Turner, and House (1989) show that finding a new job eliminates the negative physical and psychological effects of unemployment. Thus, positive events may be just as important as negative ones for health and well-being (contrary to findings summarized earlier), but their effects might not be seen unless they are directly linked to preceding negative ones (suggesting once again the importance of examining experiential sequences).[4]

All of these implications seem to threaten the social causation perspective which explicitly or

implicitly guides most, if not all, sociological stress research. Stress researchers cling to the idea that causation flows primarily from stressors to physical or psychological well-being; reverse causality (the social selection or drift hypothesis) is almost always viewed as an alternative explanation which must be ruled out (for exceptions see Dohrenwend et al. 1992; Turner and Gartrell 1978). Even researchers whose results clearly imply the effects of individual motivation or agency (e.g., Brown et al. 1992; Kessler et al. 1989) go to extensive lengths to show that individuals' prior levels of physical or psychological functioning do not fully account for the beneficial consequences of self-initiated change. Although considerable evidence supports the social causation perspective (e.g., Link, Lennon, and Dohrenwend 1993), social selection processes are both plausible and theoretically important. I will argue below that appreciating the individual as a psychological activist should not be seen as a threat to the social causation perspective, but instead as a challenging opportunity to explore more fully the interplay between personal agency and structural constraints.

New Directions: In Pursuit of Meaning. A final direction worthy of mention is a renewed interest in the meaning of stressors or, more generally, in the problem of meaning. Attempting to further specify which kinds of stressors should have harmful psychological consequences has stimulated this interest. Currently, there are four different approaches to meaning identifiable in the literature. The first two are well-established, the latter two are more recent and exploratory.[5]

Lazarus and Folkman (1984) describe meaning in terms of appraisal; they ask, for example, whether a demand is perceived as a harm/loss, threat, or challenge, and whether a demand is perceived as controllable or not. Such appraisals should influence the number and types of coping responses that individuals will use. Brown and Harris (1978, 1989) assess the meaning of an event or chronic difficulty (its severity and emotional significance) by taking into account a person's biography, his/her plans and purposes, and the surrounding contextual circumstances (see Shrout et al. [1989] and Dohrenwend et al. [1993] for similar approaches). A contextual definition of meaning has been partially adopted by Wheaton, who examines preexisting chronic strains as the context in which events occur and which alter events' impacts (e.g., Wheaton 1990a, 1990b).

More recently, I have proposed that the meaning or significance of stressors depends on the salience to the individual of the role-identity domain in which they occur (Thoits 1992, 1994a; see also Brown et al. 1987). And Simon (1995) suggests and shows that the beliefs that individuals hold about the relationships among their roles influence the meanings they derive from experienced role demands. Individuals who believe that their work and family roles are interdependent report fewer role conflicts and feelings of failure as parents, spouses, and workers compared to those who believe that work and family roles are independent or unrelated.

These four approaches (using appraisals, context, identity salience, and belief systems), of course, do not exhaust the potential meanings of "meaning." Others likely will develop,[6] since there is little disagreement among researchers—in the field of mental health at least—that assessing meaning is crucial for further specifying which events and strains will have negative psychological impacts. My own work on the effects of identity-relevant stressors (Thoits 1994a) has convinced me that detailed qualitative information about surrounding circumstances, beliefs, and personal values is crucial for understanding the meaning and emotional impacts of negative events in identity domains that are important to the individual. Minimally, such qualitative details help distinguish major from minor events; maximally, they lead to new theoretical insights regarding the configuration of circumstances surrounding stressors which make them most damaging (e.g., Brown et al. 1987; Brown and Harris 1989).

As is often pointed out in reviews, even when refined specifications of stressors are obtained using qualitative information, the relationships of events and ongoing difficulties with health outcomes are far from perfect. This observation has led researchers to consider other processes which intervene between stressful demands and reactions to those demands. I turn next to two related processes, the utilization of coping resources and coping strategies.

COPING RESOURCES AND COPING STRATEGIES

Definitions. Coping *resources* are social and personal characteristics upon which people may draw when dealing with stressors (Pearlin and Schooler 1978). "Resources . . . reflect a latent

dimension of coping because they define a potential for action, but not action itself" (Gore 1985:266). In addition to social support (which is examined separately below), the two personal coping resources most frequently studied by sociologists are a sense of control or mastery over life (i.e., an internal or external locus of control orientation) and, somewhat less commonly, self-esteem.[7] These coping resources are presumed to influence the choice and/or the efficacy of the coping strategies that people use in response to stressors (e.g., Folkman 1984). It is for this reason that I review coping resources and coping strategies together in this section.

Coping *strategies* consist of behavioral and/or cognitive attempts to manage specific situational demands which are appraised as taxing or exceeding one's ability to adapt (Lazarus and Folkman 1984). Coping efforts may be directed at the demands themselves (problem-focused strategies) or at the emotional reactions which often accompany those demands (emotion-focused strategies).[8] Most investigators assume that people high in self-esteem or perceived control are more likely to use active, problem-focused coping responses; low esteem or perceived control should predict more passive or avoidant emotion-focused coping. A related concept is that of coping *styles*, which are habitual preferences for approaching problems; these are more general coping behaviors that the individual employs when facing stressors across a variety of situations (e.g., withdraw or approach, deny or confront, become active or remain passive) (Menaghan 1983).

Major Findings and Gaps: Personal Resources. A sense of personal control or mastery over life is the most frequently examined coping resource in the literature (with the exception of social support, discussed below). An impressive number of studies show that a sense of control or mastery both directly reduces psychological disturbance and physical illness and buffers the deleterious effects of stress exposure on physical and mental health (see reviews in Rodin 1986; Turner and Roszell 1994; also Kessler, Turner, and House 1988; Mirowsky and Ross 1990; Rosenfield 1989; Turner and Noh 1988).[9] Although self-esteem significantly reduces psychological symptoms (especially depression) and buffers the emotional consequences of stressors as well (Kaplan, Robbins, and Martin 1983; Shamir 1986; Turner and Roszell 1994), its role with respect to physical health outcomes has less often been studied.

Perceived control over life circumstances is inversely distributed by social status. Females, minority group members, unmarried persons, and especially those of lower education and income exhibit higher fatalism or a lower sense of mastery, personal control, or internal locus of control (see reviews in Mirowsky and Ross 1989; Turner and Roszell 1994).[10] Although less frequently studied by stress researchers, self-esteem is similarly distributed by social status (Turner and Roszell 1994). However, gender differences in self-esteem have less often been found in studies conducted since 1980 compared to earlier decades (Miller and Kirsch 1989); this shift may be due to women's changing labor force participation or to the influence of the Women's Movement more generally.

Because perceived control over life and high self-esteem are consistently observed to buffer the negative health effects of stress, researchers have reasoned that these characteristics probably increase the use of effective coping strategies, and that unequal distributions of these coping resources by social status probably account for observed demographic differences in emotional vulnerability to stressors (described earlier). Interestingly, support for each of these implications has been inconsistent. For example, although several studies show that individuals high in self-esteem and sense of control are more likely to use problem-focused coping strategies or to have an active coping style (Menaghan 1982, 1983; Menaghan and Merves 1984; Pearlin and Schooler 1978; Pearlin et al. 1981; Ross and Mirowsky 1989), most of these studies also show that problem-focused coping either has no effects on or in some cases can exacerbate psychological symptoms (see summary in Menaghan 1983:191). A close reading of these studies indicates that there is considerable complexity and inconsistency in the relationships among personality characteristics, choice of coping strategies, and the efficacy of coping outcomes. Far more work is required to clarify these relationships.

As mentioned earlier, differential vulnerability to stressors has usually been attributed to a lack of coping resources in lower-status groups—in particular, to lower self-esteem, lower perceived control, and lack of readily available social support. Although some studies confirm this reasoning (Kessler and Essex 1982; Turner and Noh 1983), several others do not (Brown

and Harris 1978; Turner and Noh 1983; Thoits 1982, 1984, 1987). At present, we lack persuasive evidence that deficiencies in psychosocial resources reliably explain social status differences in emotional reactivity to stressors (Aneshensel 1992).

Major Findings and Gaps: Coping Strategies. Turning to research on coping strategies, a number of studies indicate that individuals typically use multiple tactics when coping with major life events or ongoing strains (e.g., Billings, Cronkite, and Moos 1983; Folkman and Lazarus 1980; Stone and Neale 1984). Folkman and Lazarus (1980) reported that in 98 percent of 1,300 stressful episodes, subjects used *both* problem-focused and emotion-focused coping strategies. These findings supported their contention that there are usually two sources of stress which must be handled, both situational demands and one's emotional response to those demands.

Not surprisingly, stressors which are appraised as more severe (e.g., as harms/losses or as threats) evoke greater numbers of coping responses (Cronkite and Moos 1984; Folkman and Lazarus 1980; McCrae 1984; Menaghan 1982, 1983; Menaghan and Merves 1984). In general, problem-focused coping is more likely when situational demands are appraised as controllable; emotion-focused coping is more likely when demands seem uncontrollable (Billings et al. 1983; Coyne, Aldwin, and Lazarus 1981; Folkman 1984; Folkman and Lazarus 1980, 1985; Folkman et al. 1986; Forsythe and Compas 1987; Stone and Neale 1984; Thoits 1991). Although the perceived uncontrollability of a stressor consistently predicts the use of *emotion*-focused strategies, it should be noted that some studies find no association between perceived situational control and efforts to problem-solve (Stone and Neale 1984; Thoits 1991).

Coping researchers generally expect problem-focused coping to be more beneficial for well-being than emotion-focused coping. Despite this belief, there is no clear consensus in the literature regarding which coping strategies are most efficacious in reducing psychological distress or ill health (e.g., Aldwin and Revenson 1987; Mattlin, Wethington, and Kessler 1990; Rodin and Salovey 1989). Some studies find that problem-focused coping decreases psychological distress or promotes rapid recovery from illness while emotion-focused strategies do not; others report the opposite pattern. Indeed, Coyne and Downey (1991) have commented that across studies, coping strategies more often seem to have damaging rather than beneficial effects on well-being. One might be tempted to conclude that most forms of coping are usually ineffective, but this would be premature. Respondents may have already been distressed when they began coping with a specific problem, the specific stressor described may have been memorable because respondents were unable to handle it well, or the stressor may have been unusually severe. Adding further complexities to an already complex literature, some emotion-focused strategies (such as denial and alcohol use) have been found to be beneficial in the short run but to have deleterious consequences over the long run (Aneshensel and Huba 1983; Clark 1994; Rodin and Salovey 1989).

Probably no one coping strategy or coping mode is efficacious across all situations. In fact, research indicates that coping effectiveness depends importantly on the type of stressful situation that the individual confronts. Mattlin and associates (1990) found that efforts to cope with chronic difficulties were much less likely to reduce anxiety and depression than efforts to cope with acute life events. Like Pearlin and Schooler (1978) and Menaghan (1983), they also showed that specific coping strategies which reduced psychological symptoms in one stressful domain were ineffective or even detrimental when used to combat other problems. Generally speaking, the effectiveness of any one strategy or coping style may depend on abstract properties of a stressor (e.g., chronic versus acute, controllable versus uncontrollable), on specific subtypes of stressors (e.g., death of a loved one, illness, interpersonal problem), or perhaps on some combination of both aspects. Far more work will be needed to identify the types of coping which reliably reduce distress or ill health in response to particular types of situations.

A key question for sociologists is whether coping techniques and/or coping styles are distributed unequally by social status. With respect to gender, the answer seems to be a qualified 'yes' (comparisons across studies are difficult because researchers use very different coping classifications and means of assessment—e.g., coping in response to a particular stressor versus measures of cross-situational coping style). Studies consistently suggest that men have an inexpressive, stoic style of responding to stressors and women have an emotional,

expressive style (Milkie and Thoits 1993). Men more often report controlling their emotions, accepting the problem, not thinking about the situation, and engaging in problem-solving efforts. Women more often report seeking social support, distracting themselves, letting out their feelings, and turning to prayer. Women's greater propensity to seek social support is especially consistent across studies. But there are a number of exceptions in the literature with respect to gender differences in problem-focused coping (e.g., Billings and Moos 1984; Folkman and Lazarus 1980; Ross and Mirowsky 1989; Milkie and Thoits 1993). This may be because men's and women's use of problem-focused coping may depend upon perceiving control or power in a role domain—for example, men in the occupational arena and women in the family arena (Folkman and Lazarus 1980; Menaghan 1982; Pearlin and Schooler 1978).

To date, there are no reliable findings with respect to age differences in coping responses (Billings and Moos 1981; Folkman et al. 1987; Folkman and Lazarus 1980; McCrae 1982; Rook, Dooley, and Catalano 1991). Racial and socioeconomic differences have rarely been examined. Some studies indicate that highly educated individuals are more likely to use or prefer problem-focused strategies, if thinking through the situation is treated as a problem-solving tactic (Billings and Moos 1984; Ross and Mirowsky 1989; Veroff, Kulka, and Douvan 1981). In general, social status differences in coping styles and in situational coping responses require further exploration.

My suspicion is that reliable differences will emerge (as they have for gender) despite considerable variability in ways of assessing stress and coping efforts across studies. Whether gender and other social status differences in coping can be attributed to exposure to different stressors, to differing appraisals of stressors, or perhaps to differential socialization become important questions to pursue (Milkie and Thoits 1993). Pearlin and Schooler found that women and people with low education and income were more likely to employ coping strategies which are relatively inefficacious in reducing role-related emotional distress. Thus, they suggest that "the groups most exposed to hardship are also least equipped to deal with it" (Pearlin and Schooler 1978:18). Whether social status differences in the use of coping strategies help explain status variations in health and mental health outcomes is a crucial issue which deserves far more research attention by sociologists.

Additional Gaps: Relationships Between Coping Resources and Coping Strategies. Presumably, resources such as high self-esteem and an internal locus of control give individuals the confidence or motivation to attempt problem-focused coping in the face of stress. Presumably, too, the perception that a specific stressor is controllable increases the probability that the individual will attempt problem-solving responses (Folkman 1984). But the link between personality orientations and the perceived controllability of specific stressors has not been explored, to my knowledge. One could argue that people high in internal control or self-esteem should be more likely to appraise specific situations as controllable and thus to engage in problem-focused coping; those low in these personality resources should more often perceive problems as uncontrollable and thus engage in emotion-focused coping (Folkman 1984). Whether this reasoning is valid remains an open empirical question at this point. I emphasize here the unexplored links among personality characteristics, situational appraisals, and coping strategies to underscore a key point: To date, we have not developed adequate or detailed theoretical explanations of how or why self-esteem and a sense of control over life come to buffer the negative health consequences of exposure to stress.

Also unaddressed is the reverse question: What are the consequences of coping efforts for self-esteem and a sense of mastery (Cohen and Edwards 1989; Thoits 1994b; Turner and Roszell 1994)? Sociologists typically assume that life experiences both determine and modify personality characteristics. Personality characteristics should not only influence perceptions and coping behaviors, but the success or failure of coping efforts should also enhance or undermine self-esteem and a sense of mastery, respectively. We have rarely treated personality resources as *dependent* variables in the stress and coping process; doing so might help further illuminate the dynamics of the relationship between personality resources and coping.[11]

Moreover, the degree to which personality characteristics and coping behaviors influence the number and types of stressors that individuals experience is also unexplored (Cohen and Edwards 1989; Turner and Roszell 1994). People with high self-esteem and a sense of personal control may have the skills to avoid or prevent negative events or chronic difficulties.

Alternatively, these characteristics may influence people's appraisals of events and strains, perhaps rendering them perceptually less threatening. Again, we have not yet spelled out theoretically or examined empirically just how personality resources and coping responses operate in the dynamics of the stress process.

Promising New Directions. I find it difficult to discern *new* directions in coping resources and coping strategies research. With respect to coping resources, this is probably because we have not yet developed theoretically detailed explications of how these personality characteristics actually work to reduce physical and emotional vulnerability to stress. New directions are also hard to identify in research on coping strategies because differing research designs and measurement schemes make comparisons across studies problematic and thus findings less cumulative.

I will highlight two potentially *promising* directions in current research. Since the mid-1980s, a number of investigators have begun to employ daily diary methods or panel survey methods with closely-spaced assessments to study changes in stress, coping, mood, and physical symptoms (e.g., Bolger 1990; Bolger et al. 1989a, 1989b; Folkman and Lazarus 1985; Folkman et al. 1986; Stone, Lennox, and Neale 1985; Verbrugge 1985). Despite data complexities and inherent statistical problems, these studies are more faithful to the dynamic, unfolding nature of the phenomena under investigation, compared to experimental and cross-sectional survey designs. Such multiple-assessment, longitudinal designs might enable detailed examinations of coping sequences (which are rarely a focus) as well as the conditions under which individuals use the same or shift to different coping strategies in response to experiential feedback or changing situational demands (Menaghan 1983).[12]

A second development which has promise is the documentation of flexibility or versatility as an efficacious coping style. Pearlin and Schooler (1978) and Mattlin and associates (1990) found that people who routinely use a large number and variety of coping strategies in response to stressors experienced lower emotional distress. Mattlin and his colleagues also found that "passive coping," that is, routinely using few or no coping strategies, enhanced psychological adjustment to chronic difficulties (but not acute events). These general delineations of coping style seem important to replicate in future research. If replicated, interesting additional questions might be raised. What are the social and personality characteristics of people who display flexible and passive coping? If flexible/passive coping styles exist, do these styles influence peoples' subsequent experiences of stress?

I will close this section by briefly raising two additional issues which may be useful to pursue in future work. The first issue is our puzzling lack of attention to an obvious coping resource: money. We treat financial resources either as an indicator of socioeconomic status or, when resources are scarce, as an indicator of experienced chronic difficulty. We do not consider the possibility that financial resources themselves may serve as stress buffers, although everyday observation would suggest that people often draw upon their finances when coping with a variety of problems. Despite difficulties in operationally distinguishing the social status, chronic strain, and coping resource aspects of people's financial situations, this potential problem-solving resource deserves empirical attention, especially as it pertains to physical health outcomes through increased access to medical care.

A second issue concerns the influence of structural constraints. Earlier I argued that stress researchers tend, on the whole, to disregard or deemphasize the degree to which individuals are activists on their own behalf. But individuals' activism and motivation become obvious when we examine the effects of coping resources such as mastery and especially when we study the various coping strategies that people deliberately and consciously use. Ironically, in these areas of research, we may lose sight not of people's agency but of structural constraints on that agency (Menaghan and Merves 1984). As Pearlin puts it, "*Certain kinds of life exigencies seem to be particularly resistant to individual coping efforts* . . . [T]here are situations in which 'problem solving' is not a realistic option" (1991:267, emphasis in the original).

If we pursue questions about the relationships between personality resources and efficacious coping, I believe we will have to attend more closely to the objective features of individuals' situations that constrain action. Folkman (1984) has argued that for problem-focused coping to be effective, subjective appraisals of controllability must match the objective controllability of a stressor (conversely, for emotion-focused coping to be effective, situations should be

objectively uncontrollable and accurately perceived as such). We have yet to take into account whether the specific problems with which people grapple are truly amenable to change. If we presume that individuals are activists, as I have advocated earlier, we must also, as good sociologists, simultaneously ask what are the limits on that activism? Research on coping resources and coping strategies seem ideal arenas in which to explore the interplay between personal agency and structural constraint.

SOCIAL SUPPORT AND SOCIAL INTEGRATION

Definitions. As mentioned in the previous section, social support is considered a coping resource—in this case, a social "fund" from which people may draw when handling stressors. Social support has been the most frequently studied psychosocial resource. Social support usually refers to the functions performed for the individual by significant others, such as family members, friends, and coworkers. Significant others can provide instrumental, informational, and/or emotional assistance (House and Kahn 1985). These various supportive functions usually are highly correlated and often form a single underlying factor (House 1981; House and Kahn 1985), summarized as perceived or received social support. The effects of *perceived social support* have most frequently been examined in the literature, especially the effects of perceived *emotional* support (i.e., beliefs that love and caring, sympathy and understanding, and/or esteem and value are available from significant others). The perception or belief that emotional support is available appears to be a much stronger influence on mental health than the actual *receipt* of social support (Dunkel-Schetter and Bennett 1990; Wethington and Kessler 1986).

Most investigators agree that structural and functional aspects of social support are different phenomena and should be assessed and examined as such (Barrera 1986; House and Kahn 1985). *Structural support* refers to the organization of people's ties to one another—in particular, to the number of relationships or social roles a person has, to the frequency of his/her contact with various network members, to the density and multiplexity of relationships among network members, and so forth. Network measures often capture the individual's level or degree of social isolation/integration or social embeddedness.

Major Findings and Gaps. Existing reviews of the social support literature (Berkman 1984; Cohen and Wills 1985; House et al. 1988; Kessler and McLeod 1985) lead to three major conclusions. First, measures of social integration are directly and positively related to mental and physical health, including lower mortality, but social integration does *not* buffer the physical or emotional impacts of major stressful life events or chronic difficulties in people's lives. Second, perceived emotional support is associated directly with better physical and mental health *and* usually buffers the damaging mental and physical health impacts of major life events and chronic strains. Third, the simplest and most powerful measure of social support appears to be whether a person has an intimate, confiding relationship or not (typically with a spouse or lover; friends or relatives function equivalently but less powerfully). Having a confidant significantly reduces the effects of stress experiences on physical and psychological outcomes (Cohen and Wills 1985). These conclusions generally hold for more recent studies of the effects of structural and functional support (e.g., Cohen 1988; but see Ensel and Lin [1991] for an exception with respect to stress-buffering).

How structural and functional aspects of social support are related to one another has not often been studied. It is possible that the number and structure of individuals' social ties matter less for *perceptions* of support than the possession of at least one tie that is close and confiding. However, Lin and Westcott (1991) argue cogently that network structure is crucial for *access* to various kinds of functional assistance. Indeed, the size of a person's social network, the cohesiveness of the network, and the types of relationships in a network (e.g., strong ties vs. weak ties) have been shown to influence the *receipt* of various kinds of social support (Barrera 1986; Wellman and Wortley 1990). Received support, in turn, appears to promote perceptions of support availability (Wethington and Kessler 1986), particularly when help has been given with few strings attached (Uehara 1990). The propositions that network structure mediates

access to received functional support which in turn enhances perceived support deserve further serious study.

Surprisingly little is known about the social distributions of perceived support. Studies generally show that women either report more perceived support than men or that men and women do not differ in this resource (Pearlin et al. 1981; Ross and Mirowsky 1989; Turner and Marino 1994; Turner and Noh 1988; Vaux 1988). This is a departure from the usual inverse relationship between social status and coping resources. Consistent with previous status patterns, however, are that married individuals report higher perceived support than the unmarried, and perceived support decreases with age and increases with indicators of socioeconomic status (Ross and Mirowsky 1989; Thoits 1984; Turner and Marino 1994; but see Lin et al. [1986] for exceptions by age and SES). Involvement in social networks also varies by social status. Men tend to have larger networks than women but women exhibit greater investment and intimacy in their relationships (Belle 1987). In other words, male participation in social networks across the life course is more "extensive" but less "intensive" than that of females (Belle 1987:260). Network size and participation decline with age and increase with employment status and socioeconomic status (e.g., Fischer 1982; Thoits 1982; Turner and Marino 1994). As discussed in an earlier section on coping resources, despite these social patterns, neither indicators of integration/isolation nor the degree of perceived support consistently explain differential reactivities to stressors by social status.

Despite considerable theorizing about how social support works to reduce ill health and psychological disturbance (e.g., Belle 1987; Berkman 1985; Pearlin 1985; Thoits 1986), we still lack studies which directly examine presumed intervening mechanisms. It has been argued with respect to mental health, for example, that supporters provide coping assistance (for example, by helping to reinterpret situational demands), that supporters' reassurances bolster self-esteem or a sense of identity, and that supporters' feedback and encouragement sustain a sense of mastery or competence. Yet very few studies to date have examined the actual influences of perceived or received support on individuals' choice of coping strategies or on individuals' self-esteem, identity, or mastery; the results of studies that have done so have been inconsistent at best (Brown 1978; Dunkel-Schetter, Folkman, and Lazarus 1987; Holahan and Moos 1987; Ross and Mirowsky 1989). Attention to intervening mechanisms seems a crucial next step if we wish to truly understand how social support influences psychological well-being.

The mechanisms through which social support can influence a target individual's physical health may be even more complex (Berkman 1985; Kaplan and Toshima 1990; Rodin and Salovey 1989). Supporters may encourage (or sometimes sabotage) individuals' attempts to control their eating, drinking, smoking, or exercising behaviors; actively monitor and regulate a target's health-related behaviors; model or be coparticipants in health-related activities; and urge medical treatment-seeking, among other possibilities. We still know very little about what support-givers actually do to encourage or sustain health-related changes. To add to the complexity, a significant other's sheer presence may regulate an individual's emotional state, which in turn may have implications for his/her immunological responses to stress (Cohen and Williamson 1991; House 1981). Until supportive processes and intervening mechanisms are better understood, the goal of designing effective interventions for people coping with specific stressors or attempting health-behavior changes will elude us (e.g., Gottlieb 1992; Heller et al. 1991a; Heller et al. 1991b).

Moreover, relationships among various psychosocial coping resources remain understudied (Gore 1985). Above, I argued that we know little about how social support affects individuals' personality resources. Conversely, we have rarely explored how personality resources affect perceived or received support and social isolation/integration (cf. Eckenrode 1983). It seems reasonable to suppose that individuals high in self-esteem and mastery also have greater social skills, which in turn should enhance their likelihood of having a support system in place and/or perceiving that support is available.[13] Ross and Mirowsky (1989) offer evidence, however, that perceived control and support are only moderately correlated and that they are alternative and functionally equivalent resources which directly reduce depression; one resource fills the gap if the other is absent. These interesting findings raise a more general question: Do personality resources and social support resources supplement (additively), augment (interactively), or

simply substitute for one another as Ross and Mirowsky suggest? Clearly, we know very little about how these resources interrelate in their effects on physical and mental health.

Additional underexplored questions concern the effects of stress experiences on perceived or received social support over time. Obviously, some stressors simultaneously represent a loss of perceived and/or received support (e.g., death of a family member, conflict with relatives or friends, marital problems), so at least some stress experiences are likely to alter significantly the person's support system and/or perceptions of support availability. Despite this, we generally presume that troubles will result in support mobilization rather than curtailment (Eckenrode and Wethington 1990). Although acute stressors may cause support mobilization in the short run at least, chronic stressors may entail serious costs to the social network and thus erode perceived or received support over time (Lin and Ensel 1989). Some evidence corroborates this latter argument (Barrera 1986; Liem and Liem 1990; Quittner, Glueckauf, and Jackson 1990). However, when chronic stressors are *mutually* experienced, collective mobilization (e.g., strikes and union formation and self-help groups can develop instead [Griffin and Korstad, forthcoming]). Speaking generally, we need further scrutiny and specification of the conditions under which stressors are likely to mobilize or erode social support. Moreover, we generally leave unexamined who marshals support—the stressed person or his/her significant others. When the stressor is an acute life event, are significant others more likely to intervene without the individual having to ask? Does the utility of support depend on whether the individual has had to solicit assistance or had it offered spontaneously? Does the individual's level of distress or illness influence the amount of support he/she receives? These remain unanswered questions.

Related to this, how do social ties and perceived support influence support-*seeking* (a coping strategy)? Some studies indicate that people who perceive their social networks to be dependable and intimate are the least likely to seek help for personal problems (Brown 1978). In contrast, Cutrona (1986) reported that persons initially high in perceived support actually received informational and emotional assistance following a stressful life experience more frequently (although she did not assess whether this assistance was actively solicited). Other studies indicate that perceived support leads to support-seeking, which in turn is associated with *higher* depression or distress (Coyne and Downey 1991; Pearlin and Schooler 1978; Ross and Mirowsky 1989). Clearly, the determinants of seeking or receiving support and the relative efficacy of solicited and unsolicited support for well-being need further investigation (Kessler et al. 1985).

Promising New Directions. Despite major gaps in our knowledge about social support and how it operates to enhance physical and mental health, there are several interesting new directions in recent research.

One new direction examines the costs as well as benefits of social relationships and support-giving. Despite the positive connotations of the concepts "social integration" and "social support," our social ties are not always or even necessarily positive influences in our lives and thus on our well-being (Rook 1992). Most obviously, the absence of social ties, or social isolation, may be a stressor in itself, producing chronic loneliness, lack of identity, or lack of behavioral regulation (Hughes and Gove 1989; Rook 1984, 1990). Some evidence indicates that obligatory social ties (e.g., spouse, parent, relative, worker) can produce stressful demands which may cancel or outweigh these roles' positive consequences for self-esteem, competence, or identity (Berbrier and Schulte 1993; Gove, Style, and Hughes 1990; Moen, Dempster-McClain, and Williams 1989; Rook 1992; Thoits 1992; Umberson and Gove 1989). In contrast, voluntary ties (e.g., friend, church member, group member) have more manageable or escapable demands, allowing those roles' benefits to exceed their costs.[14] Related to this, the results of several studies suggest that support-giving or caring for or about others can be costly; as discussed earlier, women seem emotionally more vulnerable to events that happen to members of their social networks. A recent focus on caregiver stress in the literature indicates that giving extended and extensive support indeed is physically and emotionally draining (e.g., Aneshensel, Pearlin, and Schuler 1993). In short, studies are beginning to show that there are important limitations on the degree to which the possession of social ties benefits physical or mental health.

Qualitative studies of support attempts that fail also reveal conditions under which received

support can be nonbeneficial and at worst harmful (Harris 1992). Wortman and her colleagues (e.g., Lehman, Ellard, and Wortman 1986; Wortman and Conway 1985; Wortman and Lehman 1985) have documented the kinds of statements made by helpers which can offend or upset victims of life crises—for example, claiming understanding where there is no experiential basis for the claim. Wortman's research suggests that frequently the worst support-givers are family members who are themselves affected or threatened by the victim's life crisis. Family members may push too hard or too soon for evidence of recovery or, alternatively, may become so protective and overly helpful that the victim comes to resent his/her implied dependency. One ramification is that the most effective support-givers may be *similar others*—that is, individuals who themselves have successfully faced the same stressful circumstances that the victim is currently facing (Thoits 1986). In Cohen and McKay's (1984) terms, similar others are more likely to offer support that best "matches" the emotional and practical needs of the distressed person.

The hypothesis that the most efficacious type of support is that which matches the target individual's needs has not been definitively confirmed to date (Cutrona and Russell 1990). The idea of "matching" also has spawned several efforts to specify which support *sources* (e.g., spouse, friends, coworkers, professionals) are most efficacious in buffering the impacts of certain kinds of stressors (e.g., House 1981; Jackson 1992; LaRocco, House, and French 1980; Messeri, Silverstein, and Litwak 1993). These efforts have met with limited success, with one exception. Messeri and colleagues showed that people's preferred sources of support for instrumental tasks were members of primary or secondary groups which have properties (e.g., proximity, commitment, size, division of labor, etc.) which optimally match the structural characteristics of the task to be performed (e.g., cooking, bathing, job information, financial loans, 24-hour care). Clearly, the next step is to examine whether people whose sources of support optimally match their instrumental needs are in better physical or mental health than people whose matches are less optimal. Optimal matches between individuals' socioemotional needs and abstract sources of support (e.g., socially similar others, experientially similar others) might also be explored, following Cohen and McKay's (1984) original suggestion.

That there should be a match between what is needed/wanted and what is given is also suggested by recent qualitative studies examining the dynamics of mutual coping and support-giving between married couples—some sharing the common stressor of a chronically ill child (Gottlieb and Wagner 1991), others dealing with one spouse's work problems (Pearlin and McCall 1990; Weiss 1990). These studies strongly suggest that there are gender differences in preferred coping and support-giving strategies and in the types of support that men and women wish to receive; husbands are more likely to hide problems and give (unwanted) advice, less likely to ventilate, and more uncomfortable with their wives' emotional expressivity. Often what one spouse hopes to receive is incompatible with what the other spouse thinks it best to offer, which generates conflict and mutual dissatisfaction between them. These studies underscore again that there are limits to the helpfulness of support-giving and suggest that a match between an individual's needs and proffered support may indeed be important. Similarly detailed qualitative studies of age, race, and socioeconomic differences in preferred coping and support-giving strategies would be valuable for both theoretical and applied reasons. As Gottlieb (1992:300) notes, "[T]he strongest basis for planning support interventions lies in an examination of the interactional dynamics that shape judgments of perceived support."

It is important to note that most studies view social support primarily as an individual-level, or at best, interpersonal phenomenon. Recently, community psychologists have urged renewed attention to system-level or community-level structures and processes which promote social integration and perceptions of support (Felton and Shinn 1992; Heller 1989; Maton 1989a, 1989b). As Felton and Shinn (1992) point out, we have overlooked the possibility that instead of specific people, whole groups might function as sources of perceived support (e.g., churches, neighborhood associations, seniors' centers). A sense that one belongs and matters to others may depend on the homogeneity or cohesiveness of such groups. A focus on systems-level factors is certainly in keeping with a distinctively sociological approach to a social or interpersonal phenomenon and is worth further pursuit.

OTHER ISSUES AND POLICY IMPLICATIONS

In previous sections I identified many unanswered questions and research gaps in the stress, coping resource, coping strategies, and social support literatures. To briefly summarize with respect to stressors, we know relatively little about the complexities of stressors' effects on physical health outcomes compared to mental health outcomes, including differential *physical* vulnerability to stress by social status. The physical and mental health consequences of various event and strain *sequences* require empirical attention, including "carry-overs" of stress from one role domain or stage of life to another. Better specification of stressors' meanings to individuals might help to explain the physical and psychological damage *or* benefits that can follow from stressful experiences. In the psychosocial resources domain, the mechanisms through which a sense of personal control and perceived social support promote well-being remain poorly specified and require substantial elaboration and testing. How a sense of control influences coping behavior (and vice versa), the social determinants of various psychosocial resources, and the interrelationships among psychological and social resources need to be explored further. With respect to coping processes, studies of individuals' active efforts to cope with specific stressors may best reveal the complex interplay between personal agency and structural constraints on that agency. Additional studies of flexibility as an effective coping style and the social distributions of that coping style may be empirically and theoretically fruitful. Finally, in the area of social support, we need further work on the relationships holding among structural and functional dimensions of social support, the social distributions of perceived and received support, the ways in which support influences personality resources (and vice versa), the conditions under which supportive assistance is mobilized versus eroded, and the kinds of support which optimally match individuals' needs for help.

In addition to the above issues, there are a set of more general considerations which strike me as important to tackle in the near future. The first concerns our assumptions about the stress process. Most sociologists have implicitly adopted a fairly straightforward underlying model of the stress process, which can be summarized as follows: (1) Individuals' locations in the social structure differentially expose them to stressors which in turn can damage their physical and/or mental health; (2) This damage is generally moderated or lessened by individuals' social and personality resources and the coping strategies that they employ; and (3) The possession of psychosocial resources and the use of particular coping strategies are socially patterned in ways which at least potentially may leave members of disadvantaged groups more vulnerable to the harmful physical or psychological effects of stress. Although this model accords with common sense and portions have been empirically verified (with some important gaps and exceptions, noted earlier), explained variance in physical and psychological outcomes has remained relatively modest. This leads me to speculate that the stress process is far more complex than we have envisioned and that we may need to consider additional data collection and analytic methods to explore these intricacies further.

One neglected theoretical possibility is that there are multiple pathways to the same health outcomes. Just as there may be different combinations of conditions across countries which lead to political revolution, there may be different configurations of factors across individuals which lead to heart attack or to the onset of major depression. But we have generally presumed that the factors leading both directly and interactively to particular illnesses are the same for all individuals (as in the three general statements listed above). The assumption of one process for becoming depressed or ill and the concomitant use of the general linear model to test it requires us to reject or ignore other possible processes which are less frequently observed and do not manage to achieve statistical significance.

How might one explore the possibility of multiple pathways to the same illness? One useful method is "qualitative comparative analysis" (QCA), developed by Ragin (1987) for the comparative analysis of historical cases. The QCA method and its accompanying software (Drass and Ragin 1988) are general and can be applied to data on large samples of individuals. Boolean algebra is used to isolate unique configurations of variables which are associated with specific outcomes (in this case, high depression scores or the presence of a specific disease). Although the technique has certain limitations (e.g., all independent variables and dependent outcomes must be dichotomous), its advantage is that it allows the researcher to ascertain the

existence of distinct combinations of causal variables. Distinct causal configurations, in turn, suggest different theoretical pathways to illness or disturbance.[15]

Extending the logic of the QCA method one step further, different causal pathways may apply to individuals with differing configurations of social statuses (Aneshensel 1992; Weber et al. 1993). We tend to assume that our general stress process model applies equivalently to males and females, to Blacks and Whites, to the poor and the rich, and so on. We typically treat these social statuses as analytically separable and additive in their influences on each other and on other variables in the stress process. But people are not the simple sum of their statuses and those statuses are not independent of one another. Rather, people hold combinations of statuses which are "fused" in their life experiences (Griffin and Korstad, forthcoming) and which *taken together, interactively* determine their current locations in the social structure and influence their experiences, actions, and reactions. If we take this insight seriously, then, minimally, it seems imperative to examine the applicability of our general stress process model (as well as alternative pathways to distress and poor health) to groupings of individuals who hold similar status configurations.

Although the qualitative comparative method allows one to examine combinations of variables (including statuses) associated with a particular outcome, it is an essentially static analysis of what is normally conceived as a dynamic, unfolding process. Earlier, I argued that examining various sequences of events and strains might help further specify the conditions under which stressors damage health, and that detailed chronologies of coping and support-giving efforts might reveal some orderings which buffer the impacts of specific types of stressors. One simple but limited way to assess sequences is to employ a set of dummy variables to categorize various orderings of interest. Or one can use stochastic models, such as discrete-state, first-order Markov processes and event history methods. But Markov and other stochastic models do not enable the identification of a typical sequence or sequences that might exist in one's data (Abbott and Hrycak 1990). Abbott and Hrycak suggest and illustrate the utility of "Optimal Matching Analysis," which is a statistical technique borrowed from the natural sciences used, for example, to identify DNA sequences. This technique isolates similar progressions in sequential lists of qualitative events or actions. Similar progressions then may be associated with particular outcomes of interest.

An intriguing and powerful approach to sequential *causal* analysis has been developed by Griffin (1993; Griffin and Korstad, forthcoming). To understand historical events such as lynchings and the rise and fall of a Southern union local, Griffin capitalizes on formal techniques of narrative analysis—in particular, the method of "event-structure analysis" with its associated software, ETHNO (Heise 1988, 1989). Event-structure analysis is a general technique which allows the researcher to examine and explain in a Weberian *verstehen* sense how a chronological sequence of individual actions and structural contingencies produced a particular outcome. Event-structure analysis easily could be applied to individuals' narrative accounts of their stress experiences, the sequences of actions they undertook to cope with them, and the outcomes of those actions (e.g., onset of depression, cessation of depression). The method also enables the investigator to abstract and generalize, to assess the applicability of a generalized explanation of one case to other cases, and to modify the general explanation to fit the concrete particulars of multiple cases.

The advantage of these various comparative and historical techniques of analysis is that they handle, in formal and replicable ways, data that are detailed, chronological, and qualitative. Chronological data are obviously essential to understanding unfolding processes and, as George Brown has maintained for many years, detailed qualitative data are crucial for understanding the meaning of stressful experiences to the individuals we study (Brown and Harris 1989). In my view, in order to advance and further elaborate stress theory, we need more qualitative research that focuses on the contexts and unfolding processes of coping and support-giving. In addition to the semistructured interviews and coding procedures developed by Brown and Harris and by Dohrenwend and colleagues, a variety of new formal qualitative methods are now available for use. These methods combine textual richness with sophisticated analytic techniques, merging important aspects of both qualitative and quantitative practices. This is not to say, however, that the traditional stress model, survey methods, or linear analyses should be abandoned. These are crucial for the replication of major studies, exploring

unexamined relationships, and teasing out longitudinally a variety of causal sequences and time-lagged effects among the multiple factors in our refined stress models.

Policy Implications. There are four robust findings in the stress literature that, in principle, should have public policy implications: (1) The experience of negative major life events and chronic difficulties increases the probability of psychological problems and physical illness; (2) A sense of personal control over life circumstances both reduces psychological symptoms directly and buffers the psychological effects of negative events and strains; (3) Social integration lowers the probability of morbidity and mortality; and (4) Perceived emotional support both decreases psychological symptoms directly and buffers the physical and psychological impacts of negative events and chronic strains.

For political and economic reasons it is unlikely that massive social programs will be developed in the United States to control the occurrence in the population of major disruptive events or chronic difficulties (e.g., unemployment, poverty, divorce). Consequently, the applied implications of findings regarding the health-promoting effects of social integration, social support, and (to a lesser extent) personal control (as empowerment) have been emphasized. Researchers have been especially optimistic about designing interventions to boost or manipulate social ties and/or perceived social support for individuals who are confronting particular stressors. Indeed, the most frequent intervention strategy involves introducing new social ties. There is now a burgeoning literature on the physical and psychological effects of such social support interventions aimed at special populations—for example, the divorced, the bereaved, cancer patients, pregnant adolescents, abusive parents, caregivers for the elderly, and so forth (e.g., Gottlieb 1985, 1992).

Despite researcher optimism, support interventions have often floundered or produced weak, equivocal results (Gottlieb 1992; Grych and Fincham 1992; Heller et al. 1991a, 1991b; Ludwick-Rosenthal and Neufeld 1988; Okun, Olding, and Cohn 1990). This is because basic social support research presently provides only very general guidance for the planning and execution of interventions. Guidance cannot easily be extracted from the existing research literature in part because we still do not understand the mechanisms through which social relationships lessen poor health or buffer the impacts of stress, and in part because "the culture of intervention programs differs so strongly from the natural ecology in which supportive transactions take place" (Gottlieb 1992:307).

Despite these problems, a number of successful intervention programs have been designed to prevent a wide range of emotional, behavioral, and cognitive problems in children and adults and to promote health. The most carefully documented of these programs are described in *14 Ounces of Prevention* (Price et al. 1988), including the well-known Stanford Heart Disease Prevention Program. Successful primary prevention projects have several features in common. They target at-risk populations, they provide education as well as training in specific coping skills, they build in nonspecific social support from program staff (e.g., encouragement, validation, warmth) as a key component, and some attempt to strengthen existing natural family or community supports. Thus, the manipulation of social support is among several characteristics of an effective prevention/health promotion program and it may be the *combination* of support with training and information which enhances program success. Importantly, several of these projects have provided empirical evidence of their cost-effectiveness.

Kiesler (1985:362) has observed, "If a study is to be relevant to public policy, it must measure something of interest to public policymakers . . . such as reduced system costs, lowered incidence of disease, reduced morbidity, less use of (and charges to) the physical health system, reduced insurance costs, and the like." Social support and coping intervention studies rarely demonstrate their cost-effectiveness and/or practical utility in one or more of these terms. Doing so seems crucial in future research. We already know from amassed epidemiological and survey-based evidence that social support, a sense of control and self-esteem, and certain coping skills make a significant difference in preventing or reducing physical and mental health problems. Translating these findings into effective primary prevention and health promotion projects will be especially important given the proposed shift to universally available physical and mental health care in the United States. Effective primary prevention can ease pressures on already overburdened and costly medical and psychiatric

services, which may be in even greater demand with universal health coverage. Although some commentators (e.g., Kiesler 1985) have been cautious to pessimistic about our abilities to translate basic stress, coping, and social support findings into policies and programs, I am less so. Basic and applied researchers have mutually compatible goals: (1) understanding the mechanisms through which coping resources, coping strategies, and social support influence physical and mental health and (2) putting research results to use in real-world applications. A concerted focus on identifying intervening mechanisms in both basic *and* applied projects will be the passkey to more numerous, effective stress interventions.

NOTES

1. Many items intended to assess daily hassles and uplifts (Kanner et al. 1981) are indicators of life events, chronic strains, and physical or psychological symptoms. Such operational confounding makes the effects of hassles and uplifts questionable.
2. Coyne and Downey (1991) suggest that the nature of the dependent variable also influences findings. People with a diagnosed disorder may differ from those who score high on psychological symptom scales both in social characteristics and in life event experiences. Lower social status may be more reliably associated with serious, disruptive events and with clinical disorder (see Turner [1992] for relevant evidence).
3. Assessing multiple outcomes should also direct attention to the phenomenon of comorbidity—two or more health conditions present in the same person. The National Comorbidity Study indicates high prevalence rates of psychiatric comorbidity (Kessler 1993). This observation raises additional interesting questions: What are the properties of stressors which provoke multiple outcomes, and what are the social and personality characteristics of people with comorbid conditions?
4. It is also possible that positive experiences directly increase or enhance physical or psychological well-being. But most studies rely on symptom scales or clinical diagnoses as outcome measures. These assess the relative presence or absence of persistent problems rather than positive aspects of health or psychological well-being. Thus, they are truncated measures of well-being.
5. Turner and Avison's (1992) approach to meaning is somewhat different from the approaches to be described next. They ask whether the person has been able to find meaning in an event or not. The following approaches attempt to assess meaning itself—that is, meaning's content.
6. Pearlin (1991), for example, argues that the meaning of a stressor can depend on a person's value system (what he or she views as important in life), on the surrounding context (in Wheaton's sense), or on the secondary effects of the stressor (added life strains). Riessman (1990) assesses the meaning of divorce in terms of much broader socio-cultural beliefs about the importance, permanence, and functions of marriage.
7. Psychologists additionally examine hardiness, a sense of coherence, and Type A characteristics such as impatience and hostility (see Cohen and Edwards [1989]; Rodin and Salovey [1989] for reviews).
8. Pearlin and Schooler (1978) distinguish what might be called perception-focused coping from other emotion-management strategies. Perception-focused coping consists of cognitive efforts to alter the meaning of stressful demands so that they seem less threatening or overwhelming (e.g., reinterpreting the situation, looking on the bright side of things). Lazarus and Folkman (1984) view perception-focused strategies as emotion-focused in nature because these efforts can reduce emotional reactions to demands but do not alter the demands themselves.
9. Self-efficacy, the belief that one is able to perform a specific behavior successfully, is also related to the notion of control or mastery. Behavioral self-efficacy has been related to health-promoting behavior and to positive physical health outcomes (e.g., Grembowski et al. 1993).
10. There are some inconsistencies in findings with respect to gender, however. Some investigators find no gender differences in personal control (Turner 1992; Turner and Noh 1988; Ross and Mirowsky 1989); numerous other studies report a significant gender difference. In their review, Miller and Kirsch (1987) conclude that there are few gender differences in causal attributions about stressful experiences. However, attributions about specific events are not equivalent to generalized beliefs about one's control or mastery over life circumstances.
11. That stress experience erodes a sense of mastery and self-esteem has been shown in a number of studies (see Turner and Roszell 1992). My question here is how coping successes and failures influence these personality resources. Some guidance in this topic area might be gained from the extensive learned helplessness literature.
12. These designs also may enable investigations of *combinations* of strategies that are more or less efficacious in reducing somatic or emotional reactions to stress, as well as strategies which may be equivalent in their effects and thus *substitutable* for one another (Ross and Mirowsky 1989).

13. How individuals cope with stressors might also influence whether or not support is offered and perhaps the types of support which are extended (instrumental, informational, emotional).
14. People's reports of low perceived support therefore may reflect either the absence of supportive ties *or* the presence of one or more conflictual, demanding relationships in their lives (Coyne and Downey 1991), which seems an important distinction to make.
15. The QCA method also seems ideally suited for investigating combinations of coping strategies that together most effectively reduce illness or distress in response to particular kinds of stressors.

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