ABSTRACT: Major perspectives concerning stress are presented with the goal of clarifying the nature of what has proved to be a heuristic but vague construct. Current conceptualizations of stress are challenged as being too phenomenological and ambiguous, and consequently, not given to direct empirical testing. Indeed, it is argued that researchers have tended to avoid the problem of defining stress, choosing to study stress without reference to a clear framework. A new stress model called the model of conservation of resources is presented as an alternative. This resource-oriented model is based on the supposition that people strive to retain, protect, and build resources and that what is threatening to them is the potential or actual loss of these valued resources. Implications of the model of conservation of resources for new research directions are discussed.

There are few areas of contemporary psychology that receive more attention than stress (Hobfoll, 1986, 1988; Kaplan, 1983; Lazarus & Folkman, 1984; Milgram, 1986). This literature reflects researchers' belief that stress is a major factor affecting people's lives, is intimately tied with mental health, and is very possibly linked with many problems of physical health. The interest in stress has also caught the attention of the popular press, illustrating that stress is of concern to the lay public as well as the academic community ("Stress," 1983).

With all this great breadth of interest in stress, there has been a surprising paucity of work on related theory (Kaplan, 1983; Lazarus & Folkman, 1984). Although initial stages of any research direction may be strictly observational, this phase should give way to a more theory- or model-based stage that provides a web of insights and directions to guide research (Popper, 1959). Without a clear theoretical backdrop, it is difficult to create a true body of knowledge because there are no defined borders of theory to be challenged (Cook & Campbell, 1979). Newton's theory was generally accepted for some 200 years because of such a lack of rival theories. As stated by Kurt Lewin, "There is nothing as practical as a good theory."

In this article, I will outline some of the stress models that have guided research and thinking on stress historically. This will lead to a discussion of current models that are relied on in framing the topic of stress for research. However, it will be argued that only a weak link exists between current stress models and the actual research that is conducted. In addition, it will be argued that current models are tautological and so can do little to move stress investigators toward new horizons of research. Yet, because they are tautological, they can never be rejected either. Finally, a new stress model will be presented called the model of conservation of resources. It is proposed that this model is more directly testable, comprehensive, and parsimonious than previous approaches and that it provides a clearer direction for future research on stress and stress resistance.

The Cannon-Selye Tradition

The term stress is loosely borrowed from the field of physics. Humans, it is thought, are in some ways analogous to physical objects such as metals that resist moderate outside forces but that lose their resiliency at some point of greater pressure. The analogy to humans is obvious, albeit inexact.

Walter Cannon (1932) was probably the first modern researcher to apply the concept of stress to humans in these kinds of terms. Cannon was principally concerned with the effects of cold, lack of oxygen, and other environmental stressors on organisms. He concluded that although initial or low level stressors could be withstood, prolonged or severe stressors lead to a breakdown of biological systems.

Cannon's emphasis on stress as response was carried on by Hans Selye (1950, 1951–1956). Selye depicted stress as an orchestrated defense operated by physiological systems designed to protect the body from environmental challenge to bodily processes. He called this the General Adaptation Syndrome. Specifically, he felt that there was a common reaction to outside stressors following the sequence of alerting response, resistance response, and exhaustion.

Selye has been criticized on two levels. First, the idea that the reactions of humans to stress is so uniform can be challenged by a wealth of data (Appley & Trumbull, 1986; Lazarus & Folkman, 1984). How people respond to challenges from their environment can be seen as a function of their personality, constitution, perceptions, and the context in which the stressor occurs (Meichenbaum, 1977; Moos, 1984; Sarason, 1975; Spielberger, 1972; Zuckerman, 1976). Second, Selye has been criticized for employing somewhat illogical deductive reasoning. He depicted stress in terms of outcome, such that an organism could be seen as under stress only when a phase of the general adaptation sequence was occurring. This
viewpoint precludes the possibility of prospectively identifying the cause of stress, because we are forced to wait until the outcome to know when stress will occur.

**Stimulus Definitions of Stress**

A less well-articulated view of stress may be identified in terms of depicting stress from the nature of the stimulus, as opposed to the response. Elliot and Eisdorfer (1982), for instance, have focused on stressors, or that which is likely to cause stress, as the object of interest. They outlined four kinds of stressors: (a) acute, time-limited stressors, such as a visit to the dentist, a car accident while one is driving, or a woman's awaiting breast biopsy; (b) stressor sequences, such as divorce, bereavement, or job loss; (c) chronic, intermittent stressors, such as examinations for students, meetings with business associates one dislikes, or a regimen of visits to a physician for painful treatments; and (d) chronic stressors, such as debilitating illness, prolonged marital discord, or exposure to occupation-related dangers.

Events in this case are considered stressful on the basis of whether they normally lead to stress reactions. That is, if the stimulus usually leads to emotional upset, psychological distress, or physical impairment or deterioration, then the stimulus is said to be a stressor. This thinking loosely follows from the important work of Gerald Caplan (1964) and Eric Lindemann (1944), who were among the first to introduce a psychological view of stress, as opposed to the physiological view advanced by Selye. They also saw it as important to emphasize that psychological distress was not necessarily the product of deep-seated personality disturbances, as psychodynamic theorists would have it, but rather that it could occur as the product of confrontation with especially stressful events. In particular, their work focused on normative life crises and extreme challenges to people's self or social world. The study of the process of bereavement is one commonly cited offshoot of their approach (Parkes, 1970, 1972), and the early work on stress as change requires adaptation may also be seen as a product of this approach (Holmes & Rahe, 1967).

A normative view of stressors as suggested by Elliott and Eisdorfer is a good starting point because it outlines those events that are likely to lead to stress responses. This limits the world of events that one would otherwise have to observe in each and every case in order to prospectively study the stress process. Perceptions may be important determinants of what is stressful, but these perceptions are far from idiosyncratic; that is, there is broad agreement as to what is stressful (Dohrenwend, Krasnoff, Askenasy, & Dohrenwend, 1978; Holmes & Rahe, 1967). Indeed, if this were not the case, how would it be possible to construct finite lists of minor irritations and hassles (Kanner, Coyne, Schaefer, & Lazarus, 1981), the most perception-bound kinds of stressors? Without a broad sense of agreement about what is stressful in an objective sense there would be little agreement between people on which environmental occurrences were found to be stressful.

Perhaps more important, if we do not begin with an environmental view of stressors, then the division between stress responding and neurotic symptoms is lost (Dohrenwend, Dohrenwend, Dodson, & Shrout, 1984). In other words, if stress is only that which is in the eye of the beholder, then we return to a psychology of internal processes. If, as Dohrenwend et al. (1984) pointed out, stressors are indistinguishable from symptoms, then the environmental component is removed from stress research. It is not clear that this would push the study of stress beyond where the study of psychopathology has already taken us.

By creating a taxonomy of stressful events we set an anchor point by which the differences in how people react can be compared and through which the nature of the events themselves can be further categorized (see Baum, Singer, & Baum, 1981). Kessler (1983) suggested that this may best be accomplished through longitudinal study of such events. Unfortunately, this lead has seldom been followed by stress researchers, as few studies have compared reactions to different categories of events. Even if this approach was adopted, however, it is clear that the stimulus is only one facet of the stress phenomena.

**Event-Perception Viewpoints**

Another perspective that was influential to stress researchers is a viewpoint that focuses both on the category of stressor events and the individual differences in the appraisal of those events. This approach should not be confused with "stimulus only" perspectives or appraisal perspectives because it emphasizes both the event and the individual's reaction to the event.

The research of Spielberger (1966, 1972) is illustrative of this viewpoint. Spielberger suggested that certain events are stressful if they are thought to be threats to the physical self or the phenomenological self. He called these physical threats and ego-threats, respectively. Although individuals with different personalities responded somewhat uniformly to physical threats, people's responses to ego-threats were related to personality traits. In particular, Spielberger noted that people with high trait anxiety tended to react with state elevations in anxiety to ego-threat, whereas those who were low in trait anxiety tended to be comparatively impervious to ego-threats. In this way, it is neither the stimulus nor the appraisal that is important, but rather their particular interaction.

Another line of research is also instructive in this regard. Specifically, research on test anxiety has led to one of the most complete understandings of responding to one kind of stressful stimulus. The work of I. Sarason...
typifies this direction of investigation. Sarason (1972, 1975) has illustrated that examinations constitute a class of environmental event that are very commonly found to be stressful. However, he and other test anxiety researchers also have suggested that relative sensitivity to stress is a product of personality. This perspective is important because it illustrates both that certain events are commonly viewed as stressful and that individuals differ in their degree of reactivity to normatively stressful events. It further indicates that such sensitivity is a fairly stable personality trait and that although related to sensitivity to other stressors, it may also exist independently of other sensitivities. So, for example, a test-anxious person might be resilient in the face of threatening interpersonal interactions.

Although both Sarason and Spielberger highlighted the role of perception in their theorizing and research, their approach is more complex than this. Its complexity derives from a three-part emphasis on appraisal, known environmental threats, and personality traits. Broadly speaking, it integrates appraisal- and stimulus-based models, adding the vital third element of individual characteristics. This three-part approach represented a conceptual leap for stress researchers that has not often been followed. Instead, many investigators have returned to models that emphasize appraisal to such an extent as to all but ignore actual environmental occurrences or personality traits, others have focused on personality to the exclusion of more idiographic perceptions, and still others have remained tied to stimulus-only models.

**Homeostatic and Transactional Models of Stress**

Probably the most commonly adopted model of stress employed by stress investigators today is a homeostatic model of stress presented in detail by McGrath (1970), but based in large part on the work of Lazarus (1966). McGrath defined stress as a "substantial imbalance between environmental demand and the response capability of the focal organism" (p. 17). More recently, Lazarus and Folkman (1984) have defined stress as "a particular relationship between the person and the environment that is appraised by the person as taxing or exceeding his or her resources and endangering his or her well-being" (p. 19).

Implied in these definitions is that stress is not the product of imbalance between objective demands and response capacity, but of the perception of these factors. Second, the consequences of failure to cope must be perceived as important to the individual. Finally, McGrath suggested that imbalance may take the course of underload rather than overload, that is, too little demand vis-à-vis coping capacity. Few researchers, however, have adopted or followed up on the underload notion, and it has garnered little support.

Despite the widespread adoption of the balance model by stress researchers (Cohen, Kamarck, & Mermelstein, 1983; Gentry & Kobasa, 1984; Kendall, 1983; Wilcox & Vernberg, 1985), I would argue that it is tautological, overly complex, and not given to rejection. To be scientific, the case for rejecting or accepting a model must be clear. These points will now be reviewed in detail.

First, the balance model is tautological because it does not separately define demand or coping capacity, the two sides of the model. Demand is that which is offset by coping capacity. Yet, coping capacity is that which offsets threat or demand. Clearly, this reasoning is circular and evolves from the sole emphasis on perceptions. The balance perspective seems to lose in this way the basic measuring stone that stimulus-based models could provide. So, for example, an understanding of how people who possess varying coping resources respond to a known threat, including the degree to which they find the stimulus threatening, could help anchor the perceptive component because the stimulus is a known entity. However, if both the demand and the resources mobilized to combat that demand exist only in the perceptual world, no such anchor point exists.

An additional problem with balance perspectives is that demand and coping capacity are conceptualized post hoc. We only know that a resource aids coping capacity after it is observed to counteract some demand. We do not know if it will continue to be a resource in the future because we must always wait to see if individuals perceive it to be such. So, if optimism aids adjustment, it is retrospectively said to be a resource, and if it impairs adjustment, it is retrospectively labeled a negative coping style. Certainly, there is room for process in developing a model of stress. However, if everything is process, there is an absence of marker flags, standards of comparison, and other points of reference that can aid in organizing a taxonomy and a prediction of behavior that develops from interactions of different factors.

By deemphasizing the objective environment, some demands may even go unnoticed because individuals are succeeding in coping with them in the natural course of events. So, for example, persons with strong personality hardiness (Kobasa, 1979) may fail to even notice demands being placed on them because they see such demands as exciting challenges. In fact, they may be so rich in coping resources as to be unaware of these environmental occurrences. Other individuals may feel overwhelmed by these same events. Has no demand been placed on the hardy individuals because they failed to pay it heed, or is it a demand that their strong resources quickly overcame?

Even if coping resources and demands can be identified, the researcher is confronted with a methodological problem of measuring them in meaningful units that may be balanced. In other words, to test the model, the units of coping resources must be compared to the units of demands for balance or imbalance to be judged. No attempt has been made to develop such a system of equivalent units, no doubt because it would be an extremely difficult task. Without such units, however, the model remains a general conceptual framework, but one that may never be directly tested.

Trumbull and Appley (1986) provided a variation
on the balance theme that is more compatible with the empirical study of stress. First, they suggested that imbalance can occur when either the real or perceived demands outstrip real or perceived coping capacity. This seems to allow more equal emphasis for environmental and personal factors than do the perception-focused stress models. Second, Trumbull and Appley (1986) made an effort to integrate the overlap of findings on physiological, psychological, and social stress and suggested ways in which biological, psychological, and environmental processes could be studied side by side, rather than blurred together. The problem of circularity in defining demand and coping capacity, however, remains.

It could be argued that Lazarus and Folkman (1984) have emphasized the interaction between the environment and the individual in their transactional model of coping (Folkman & Lazarus, 1985; Folkman, Lazarus, Dunkel-Schetter, DeLongis, & Gruen, 1985). However, even what they termed the environment is really the individual’s appraisal thereof. This has led to criticisms of the circularity of their approach (Dohrenwend et al., 1984; Kasl, 1978). This circularity, it has been argued, follows from their overemphasis on perception and their lack of emphasis on environmental contingencies. This may be seen in their definition of stress, in which there is no stress without perception, and may be contrasted to Trumbull and Appley’s (1986) definition, in which both objective and subjective stress is acknowledged.

Kasl (1978) argued that when perceptions are used to establish independent and dependent variables, as in the transactional model, the two variables “are sometimes so close operationally that they appear to be simply two similar measures of a single concept” (p. 13). Lazarus and Folkman (1984), in opposition to such criticisms, went so far as to argue that the study of major stressors that are not conflated with psychological outcome (e.g., loss of loved ones, severe illness, or combat) “must not be allowed to seduce us into settling for a simplistic concept of stress as environmentally produced” (p. 19). These are exactly the kinds of events that Dohrenwend et al. (1984) found to be the most likely to represent environmental occurrences. Lazarus and Folkman (1984) instead chose to study those “garden variety” stressors for which one can “no longer pretend that there is an objective way to define stress at the level of environmental conditions without reference to the character of the person” (p. 19).

The jury is not yet in on the contrasting viewpoint promoted by the more environmentally or the more cognitively oriented camps. On one hand, there is actually great overlap between the two positions. On the other hand, the difference between the two positions was considered to be great enough for Lazarus and Folkman (1984) to have stated that “at stake is the viability of all cognitive, relational conceptualizations of stress” (p. 64).

**The Conservation of Resources: A New Stress Model**

I would like to present a new stress model that I believe more closely reflects current understanding of the ubiquitous stress phenomena and perhaps bridges the gap between environmental and cognitive viewpoints. I will argue that the proposed model is clearly testable, comprehensively explains behavior during stressful circumstances, and is more parsimonious than the balance or transactional model, while still encompassing the relative importance and complexity of cognitions. The model’s basic tenet is that people strive to retain, protect, and build resources and that what is threatening to them is the potential or actual loss of these valued resources. I have termed it the model of conservation of resources (Hobfoll, 1988).

The view that individuals actively seek to create a world that will provide them pleasure and success is a long-standing one in psychology, but one that has been relatively ignored in stress theory. Freud (1900/1913) introduced the pleasure principle, the notion that humans instinctually seek that which is pleasurable. Maslow (1968) also proposed that people seek physical resources, then social resources, then psychological resources, in a hierarchical manner. Pearlín, Lieberman, Menaghan, and Mullen (1981) have similarly proposed “that the protection and enhancement of self...are fundamental goals after which people strive” (p. 340, emphasis added). Most germane to this article, social learning theory proposes that people actively engage their environment in order to increase the chances of obtaining positive reinforcement (Bandura, 1977). There are two basic ways to achieve these goals. First, people act to enhance the likelihood of situational (i.e., here and now) reinforcement (Swann & Read, 1981). Success is more likely, however, if individuals seek to create and maintain personal characteristics (e.g., mastery or self-esteem) and social circumstances (e.g., tenure or intimacy) that will increase the likelihood of receipt of reinforcement and to avoid the loss of such characteristics and circumstances (Wicklund & Gollwitzer, 1982). The model of conservation of resources rests on this second strategy.

The definition of stress is derived directly from the model and the above mentioned basic tenet: Psychological stress is defined as a reaction to the environment in which there is (a) the threat of a net loss of resources, (b) the net loss of resources, or (c) a lack of resource gain following the investment of resources. Both perceived and actual loss or lack of gain are envisaged as sufficient for producing stress.

Resources, then, are the single unit necessary for understanding stress. Resources are defined as those objects, personal characteristics, conditions, or energies that are valued by the individual or that serve as a means for attainment of these objects, personal characteristics, conditions, or energies. Examples of resources include mastery (Pearlín & Schooler, 1978), self-esteem (Rosenberg, 1965), learned resourcefulness (Rosenbaum & Smira, 1986), socioeconomic status (Worden & Sobel, 1978), and employment (Parry, 1986).

Environmental circumstances often threaten or cause a depletion of people’s resources. They may threaten people’s status, position, economic stability, loved ones,
basic beliefs, or self-esteem. These losses are important on two levels. First, resources have instrumental value to people, and second, they have symbolic value in that they help to define for people who they are (Brown & Andrews, 1986; Cooley, 1902; Erikson, 1968; James, 1890).

**Behavior During Stressful and Everyday Circumstances**

The model of conservation of resources goes beyond previous models in that it inherently states what individuals do when confronted with stress and when not confronted with stress. Specifically, when confronted with stress, individuals are predicted by the model to strive to minimize net loss of resources. This prediction is not inconsistent with Lazarus and Folkman’s (1984) coping model, but they did not specify the goal of coping other than as an attempt to limit stress.

Other stress theories do not predict psychological or behavioral action when people are not confronted with stressors. According to the conservation of resource model, when not currently confronted with stressors, people strive to develop resource surpluses in order to offset the possibility of future loss. This phenomenon received support when studied under the rubric of self-acquisitive or self-assertive styles (Schlenker, 1987; Thibaut & Kelley, 1959). When people develop resource surpluses, they are likely to experience positive well-being (eustress), as reviews of studies of personal and social resources attest (Cohen & Edwards, in press; Cohen & Wills, 1985).

Where individuals are ill equipped to gain resources, in contrast, they are likely to be particularly vulnerable (Rappaport, 1981). Such individuals lean toward prevention of resource loss, or what some have termed self-protective styles (Arkin, 1981; Cheek & Buss, 1981; Thibaut & Kelley, 1959). People may also enrich resources by investing other resources, such as when people give aid to kith or kin. Such resource investment is not necessarily tit for tat (Clark, 1983), but rather, the model suggests that people take a long-term outlook toward the conservation of resources (see also Dodge & Martin, 1970).

This discussion begs the question of what people employ to offset resource loss or to gain resources. The answer to this question is that they employ resources that they possess or if they do not possess resources, they are available to them from their environment. Individuals, for instance, invest their love and affection to receive a return of the same.

**Kinds of Resources**

As mentioned earlier, the model identifies four kinds of resources whose loss and gain result in stress or eustress (i.e., well-being), respectively. *Object resources* are valued because of some aspect of their physical nature or because of their acquiring secondary status value based on their rarity and expense. A home has value because it provides shelter, whereas a mansion has increased value because it also indicates status. Objects have seldom been considered in stress research, but are linked to socioeconomic status, which has been shown to be an important factor in stress resistance (Dohrenwend, 1978).

*Conditions* are resources to the extent that they are valued and sought after. Marriage, tenure, and seniority are examples of these. Conditions have been studied infrequently vis-à-vis their stress-mediating effect, but Pearl- lin (1983) has suggested that roles inherent in being subject to certain conditions (e.g., wife, employee, or partner) are critical to an understanding of people’s stress resistance capacity. Vachon (1986) provided evidence that just living with someone (a condition) resulted in decreased mortality rates for women with cancer, and Henderson, Byrne, and Duncan-Jones (1981) found that being married is a resistance resource. Others, however, argue that conditions may need to be qualified; a bad marriage or poor social relationship is unlikely to have salutary effects (Rook, 1984; Thoits, 1987). Clearly, this area of resources holds much promise for future work. The conservation of resource model suggests that measuring the extent to which conditions are valued by individuals or groups may provide insight into their stress-resistance potential.

*Personal characteristics* are resources to the extent that they generally aid stress resistance. Antonovsky (1979) coined the term *general resistance resources* and suggested that one’s personal orientation toward the world is the key; specifically, this means seeing events as predictable and generally occurring in one’s best interest. Investigations of various personal resources suggest that many personal traits and skills aid stress resistance (Cohen & Edwards, in press; Hobfoll, 1985b). In addition, social support’s effect seems to hinge on its value in promoting or supporting a positive sense of self and a view that one can master or at least see through stressful circumstances (Cohen & Wills, 1985; Pearl et al., 1981).

*Energies* are the last resource category and include such resources as time, money, and knowledge. These resources are typified not by their intrinsic value so much as their value in aiding the acquisition of other kinds of resources. Energy resources have not been studied in North America to my knowledge, but have received some attention within the German action orientation model of stress research (Schönflug, 1985). Indirect evidence for the importance of energy resources may be found in network research by Wellman (1981), who illustrated that a large social network becomes valuable when information (an energy resource) that requires numerous sources (e.g., contacts for employment) is required.

Finally, the reader might note that social support does not fit in any one category above. Rather, social relations are seen as a resource to the extent that they provide or facilitate the preservation of valued resources, but they also can detract from individuals’ resources. This notion is consistent with research that finds social support beneficial when it provides for situational needs (Cohen...
& Wills, 1985; Hobfoll, 1985b) and harmful or benign when it does not (Hobfoll & London, 1986; Riley & Eck- enrode, 1986; Rook, 1984).

The Concepts of Loss

To assert that stress only concerns a loss or the potential loss of resources may seem on first blush to be an overstatement, but this is what the data on stress seem to support. Early discussion of the idea that loss is central to threat may be attributed to such authors as Lindemann (1944) and Parkes (1970). In studying bereavement, they found that loss of a loved one constituted social loss, potential loss of status and economic stability, loss of a way of life, as well as loss of the loved individual.

For loss to be central to a comprehensive theory of stress, however, loss would have to be central to all psychological stressors, not just bereavement. In reviewing any of a number of stressful event surveys (Dohrenwend et al., 1978; Holmes & Rahe, 1967; Sarason, Johnson, & Siegel, 1978), it becomes clear that most items are obviously loss events. These include death of a spouse, divorce, marital separation, being fired at work, retirement, foreclosure of a mortgage or loan, and so on. These events are given the strongest severity weighting when weights are assigned to items (Holmes & Rahe, 1967). This supports the notion that items that clearly reflect loss are the most psychologically threatening. Furthermore, if the loss does not directly affect the individual, it is less salient (Hobfoll, London, & Orr, 1988; Swindle, Heller, & Lakey, 1988). Brown and Andrews (1986) reported that other than in cases of depression where the disorder is likely to be dispositional, loss events are responsible for approximately 90% of the cases of depression they studied.

Other events are more ambiguous in terms of why they might cause stress. These include such events as business readjustment, change in health of a family member, receiving a large mortgage, or graduation from college. Researchers have consistently found that if the dimension of "undesirability" is partialled out of the correlation between the endorsement of the event and outcome, the relationship between the experience of these events and strain (i.e., the outcome of stress) approaches zero (Mueller, Edwards, & Yarvis, 1977; Thoits, 1983; Vinokur & Selzer, 1975). The question is what is meant by the vague concept "undesirable." In reviewing event items, it is readily noted that the positive interpretation of an item, such as business readjustment, indicates some increase in acquisition of something the individual values. Conversely, the negative possibility would suggest a loss of something the individual values (e.g., money, status, or flexibility). Consequently, when individuals are endorsing the item, "business readjustment," they are either indicating adjustment that denotes a gain in power, finances, or positive challenge, or they are indicating adjustment that denotes their loss. Only the loss alternative seems to be stressful and then only when it threatens cherished role involvements (Swindle et al., 1988).

Others have suggested that positive events also are stressful because change itself is stressful. Again, there is little evidence supporting this supposition and a good deal of evidence challenging it (Thoits, 1983). According to the model of conservation of resources, many changes signify a gain of resources, and these should help stress resistance, not hinder it. Indeed, as already mentioned, studies that have separated positive and negative events have found that positive events have a stress-limiting effect (see Thoits, 1983, for a review).

Transitions have also been seen as potentially stressful. Felner, Farber, and Primavera (1983) made a strong case, however, for seeing transitions as periods requiring adaptation—a process that is challenging but not necessarily stressful (Kobasa, Maddi, & Courington, 1981). Wilcox (1986) also argued that transitions are series of linked events. When these chains of events entail multiple loss events (e.g., divorce leading to income loss, breakup of other relationships, and childcare difficulties), they are likely to prove stressful. However, when they are made up of positive events or challenges that are successfully met, they are more likely to produce stress inoculations (Meichenbaum & Jaremko, 1983). Again, the evidence suggests that stress is likely to ensue only when loss is evidenced: Change, transitions, and challenge are not of themselves stressful.

Resource Replacement

The model of conservation of resources also suggests that although loss of resources is stressful, individuals may employ other resources to offset net loss (cf. Pearlman et al., 1981). Replacement is the most direct way this is accomplished. Following divorce, for instance, the most common course is remarriage (Burgess, 1981). Following miscarriage, women are told by supporters to quickly get pregnant again (Hobfoll & Leiberman, 1987). Kessler, Turner, and House (1987) also found that reemployment following prolonged unemployment largely counteracts loss-related depression, anxiety, and somatization. When direct replacement is not possible, symbolic replacement or replacement through indirect means may be possible. Numerous studies illustrate, for instance, that following loss of self-esteem people attempt to directly alter potentially harmful conditions in order to facilitate positive feedback (relatively direct), compensate by regaining esteem in other related areas (relatively indirect), or artificially acquire support for their desired identity through superficial interpersonal manipulations (more indirect; see Schlenker, 1987, for detailed discussion of these points).

Employing resources for coping is also stressful in itself. In some elegant experiments, Schönpfugl (1985) illustrated that individuals employ resources in the coping process and that such employment often depletes these resources. Energy is expended, favors are used up, and self-esteem is risked, all in the service of offsetting loss of other potential loss. If the resources expended in coping outstrip the resultant benefits, the outcome of coping is likely to be negative. Illustrating this point, studies have found that people who were placed in a position in which they were required to give support, at a time when they themselves needed support, experienced increased psy-
I think it would yield important insights about stress if the cognitive and behavioral strategies people employed in coping were tested following this process of replacement, substitution, or investment. Work on energization following failure (Ford & Brehm, 1987) suggests that people roughly judge their potential losses, determine what they stand to lose by expending other resources, and analyze the likelihood of succeeding or offsetting losses if they choose to employ a given coping strategy. The extent to which they make rational, efficient, and successful decisions about how to cope would be of great interest. No doubt such strategies are clouded by emotions and the inherent complexity of real human problems, but research should nonetheless be capable of uncovering important insights.

There is a hint here of blaming the victims, that is, “If they were only to employ their resources well, they could overcome stress.” However, resources are not distributed equally, and those people who lack resources are most vulnerable to additional losses (Dohrenwend, 1978). Loss spirals develop because they lack the resources to offset loss. If resources are used to prevent loss of other resources, such loss would be predicted to lead to further decreases in the likelihood of possessing necessary resource reserves (see Billings & Moos, 1981; Eron & Peterson, 1982; Menaghan, 1983). So, for example, following their spouse’s death, many women are too economically disadvantaged to upgrade their education, and so they are also likely to be subjected to economic stressors.

The model also predicts that those lacking the options made possible by possessing many resources will attempt loss-control strategies that have a high cost and poor chance of success. When the stakes are high, individuals have little choice but to attempt gain strategies that are likely to fail, but have some short-term payoff (Ford & Brehm, 1987). If they do not, they risk lapsing into a sense of helplessness and despair (Alloy, Peterson, Abramson, & Seligman, 1984) and further exposing themselves to loss. Mitchell and Hodson (1986), for example, found that battered women who lack personal resources such as education, self-earned income, and occupational status use passive coping. Such inappropriate forms of coping can best be explained by the fact that passive coping strategies are the most potent ones in the women’s repertoire. In the past, instead, it has often been interpreted as support for these women’s masochistic tendencies. Another study noted that Black women in a traditional Black community will seek counterproductive types of support from elders because more appropriate support is unavailable (Dressler, 1985). These studies support the hypothesis that those who lack resources attempt to employ what resources they have, often producing self-defeating consequences.

Appraisal of Resources

Until this point, emphasis has been placed on objective loss and shared social standards of what constitutes loss. The model also proposes an important role, however, for appraisal (Lazarus & Folkman, 1984). It should be underscored, however, that even when perception is important, normative tendencies regarding how resources are evaluated and what constitutes loss guide individuals’ assessments of their environments and themselves. In this regard, Rokeach (1973) provided ample evidence for common (i.e., normative) values within like cultures or groups, and scaling of life events provides evidence that an agreed-on set of weights can be applied to events ranging from the most benign to the most extreme (Holmes & Rahe, 1967).

Shifting the focus of attention. One way individuals may conserve resources is by reinterpreting threat as challenge (Kobasa, 1979; Kobasa et al., 1981). Thus, people may focus on what they might gain, instead of what they might lose, in light of a particular situation. I have argued previously, however, that this type of transformation should not be romanticized as occurring for all stressors (Hobfoll, 1985a). Many tragic stressors have little redeeming value (Lehman, Wortman, & Williams, 1987). Still, many everyday stressors are neither clearly positive nor negative and so are most likely to be open to personal appraisal. The takeover of one’s employer by a larger corporation may, for instance, be appraised as an opportunity for a quick rise in the executive ranks, or it may be perceived as spelling a rash of job lay-offs. The death of a spouse or child, in contrast, has much more straightforward meaning in terms of its consequences.

Reevaluating resources. In addition to refocusing attention as to whether and which resources are likely to be lost or gained, people may combat their sense of loss by reevaluating the value of resources that are threatened or that have been lost. So, for example, the stress of school failure can be mitigated by lowering the value placed on education. Similarly, a social rejection can be lightened by lowering the value placed on the lost relationship.

This appears to be the most simple course for people, because rather than combating the stressor or enduring the stress, people could merely alter their interpretation of events and their consequences. Indeed, many stress theories have suggested that appraisal is the key to stress resistance (Bulman & Wortman, 1977; Goodhart, 1985; Johnson & Sarason, 1978; Kobasa, 1979; Lazarus & Folkman, 1984; Spielberger, 1972). However, this suggests that appraisal of the values placed on internal and external resources are more pliable than they may, in fact, be.

Devaluation of resources in order to counteract the impact of their loss challenges basic notions concerning the self and the world. Following examination failure, students may devalue the worth of education. However, if their self-esteem was based, in part, on their past academic excellence and if they were raised in a society that highly esteems education, there will be impediments to making such reassessments. Because those things that people value and the ways in which they perceive the world are basic to their sense of self (Erikson, 1963; May, 1950; Rokeach, 1973), perceptions may not be so pliable. This may be one reason why so few interventions aimed
at changing how people make transformations of this kind have even been attempted.

Phrasing this as an empirical question, I would suggest that people's resource assessments are derived, in part, from their basic values (Rokeach, 1973) and developmental history, that is, what they have learned through experience to be valuable to them. Hence, it would be hypothesized that although minor reappraisals may allow individuals to buffer the brunt of stressors, reappraisal of more basic aspects of the self and the environment are more likely to backfire against the individual—resulting in a sense of insecurity and despair—than they are to experience psychological distress. Insofar as the basic value in question is positive self-evaluation, a history of circumstances in which individuals come to experience themselves as possessing highly disvalued attributes and performing disvalued behaviors will evoke highly distressful self-rejecting feelings. (p. 211)

So, what Kaplan was suggesting is that when people must behave or experience themselves in a way dissonant with their basic view of the self or the world, they are likely to experience psychological distress.

Rollo May (1980) also suggested that such threats to underlying or basic values are counterproductive. The distinctive quality of human anxiety arises from the fact that man is a valuing animal, who interprets life and world in terms of symbols and meanings. It is the threat to these values—specifically, to some value that the individual holds essential to his existence as a self—that causes anxiety. (p. 241)

Additional research is required concerning normative evaluation of resources and individuals' more stable resource appraisals. Certainly, situational changes in perceptions are important, but they seem to have been studied to the exclusion of more basic, stable self and world views. More attention should be drawn to how stress is influenced by socialization (Kaplan, 1983), roles (Merton, 1957; Pearlin, 1983), and social development (Bandura, 1977) than models that overwhelmingly emphasize appraisal have done.

The Expectation of Net Gain of Resources

The model of conservation of resources also suggests what, in part, motivates people's behavior when they are not currently experiencing taxing stressors. Specifically, individuals are motivated to gain resources. This motivation drives people to invest resources in order to enrich their resource pool. This serves both to shelter them from future losses and contributes to enhanced status, love, possessions, or self-esteem, depending on individuals' goals and the direction of their investment.

Investment of resources may be observed in good marriages. In such marriages, both partners are constantly contributing from what they have to each other and to the relationship. There is a long-term expectation, however, that their investment will produce a payoff in terms of returned love, esteem, affection, and security (Clark, 1983). Clearly, people's financial investments also follow this principle. People are willing, in this regard, to invest greater resources for greater payoff or for increased odds of payoff (i.e., low risk). A small gain is poor compensation for a large risk.

The model of conservation of resources predicts that when such investment does not provide a good return, people will experience this as loss. The loss is the loss of the expected or envisioned gain. Schönflug (1985) also suggested that the cost of expended internal and external resources must be added to negative outcome or subtracted from positive outcome, in order to predict people's stress reactions, and he provided some laboratory evidence for this phenomenon. Other research has also indicated that depression is most likely to follow when investment of resources fails to resolve a conflict (Brown & Andrews, 1986). Obviously, more research is required to explore this proposed aspect of the stress phenomenon.

Future Research on Stress

The model of conservation of resources helps structure the sphere in which research on stress may advance. First, the model emphasizes that resources have both objective and subjective components. Current reliance on self-report increases the potential for confounding with self-reported measures of outcome. Future research should attempt to study objectively observable resources as well. This can be done by measuring behavioral (e.g., supportive behavior) or structural (e.g., belonging to a cohesive group) operationalizations of resources (Hobfoll & Lerman, 1988; Solomon, Mikulincer, & Hobfoll, 1987) or by seeking assessments by clinicians (e.g., evaluation of self-esteem; Brown & Harris, 1978). This will not be possible for all resources, but where it is possible it would help dispel arguments that resources are themselves symptoms (Depue & Monroe, 1986; Dohrenwend et al., 1984).

It also follows that the field of stress would benefit from investigations of resources that people find helpful in light of differing kinds of losses. Individual traits, such as hardness (Kobasa, 1979), locus of control (Lefcourt, Martin, & Selah, 1984), personal self-consciousness (Suls & Fletcher, 1985), optimism (Carver & Scheier, 1983), anxiety of chronic psychopathological disorder (Depue & Monroe, 1986), and low negative affectivity (Watson & Tellegen, 1985) have been studied, but only as general stress mediators. Similarly, social support has been studied regarding its effect on stress in general, not some specific kind or category of stressors (Cohen & Wills, 1985; Sarason & Sarason, 1985). By studying the specificity of resources for counteracting the effects of different kinds of losses, the potency (i.e., effect size) and robustness (i.e., degree of potency for varied kinds of losses) may be identified. In our own research, for example, we have found self-esteem to be a generally robust resource (Hobfoll & Leiberman, 1987; Hobfoll & London, 1986), whereas the
benefit of social support was found to be limited to situations in which social interaction is possible and in which social interaction does not add to already experienced stress (e.g., stress contagion; Riley & Eckenrode, 1986). Furthermore, social support was found to have a time-limited effect, whereas the influence of self-esteem was not time limited.

If resources are only beneficial when they help counteract loss or aid net increase of resources, it also follows that a resource may, indeed, be detrimental in certain instances (Hobfoll, 1985b). We have adopted the term “resources” in our own work, despite this problem, because so many other authors have used this term. However, there is a scientific concern when research concentrates on the case in which investigators search for instances that prove their point or support the robustness of the resource that most interests them. We are all guilty of this tendency, and it is important that we test the notion of fit of resources with situational demands by illustrating both when a given resource aids adjustment and when it interferes with adjustment or is neutral. Only by this multimethod, multitrait approach (i.e., indicating when different resources do and do not contribute to stress resistance; Campbell & Fiske, 1959) may we differentiate between the actual active ingredients of coping and such problems as shared method variance and self-fulfilling prophesy.

The model of conservation of resources also demands that the popular concept of “fit” (Caplan, 1983; French, Rodgers, & Cobb, 1974) be spelled out such that we may learn what aspects of the resource “fit” the demands resulting from the loss. Fit has typically been measured in terms of self-report as to whether individuals globally judge their resources as fitting demands (i.e., “how good is the fit of your resources with job demands?”). More recent applications of the concept have attempted, in contrast, to predict a priori what properties of certain resources offset the effect of specific demands (Hobfoll & Leiberman, 1987; Hobfoll & Lerman, 1988; Hobfoll & London, 1986; Keinan & Hobfoll, in press; Mitchell & Hodson, 1986; Parry, 1986). Moos (1984) has been instrumental in this regard in urging researchers to consider the ecology of stressful events, although he has not proposed a specific theory about the properties of events that are stressful. Future research will need to more carefully delineate how certain demands are met by specific resources, and the concepts of substitution, replacement, and investment of resources may provide one avenue for such refinement.

Because loss spirals and investment of resources are predicted to occur and because events themselves are likely to evolve over time, it is also important to focus on how the interplay between resources and situational needs changes over time as stressor sequences unfold. In addition, because both of these processes result in potential stress also makes this point regarding the recursive nature of stress (Lazarus & Folkman, 1984), but does not explicitly state that coping itself potentially depletes resources.

In outlining the process by which resources operate, the model of conservation of resources suggests a specific set of behaviors and cognitions that may be observed in order to support, clarify, or disconfirm the model. So, for example, rather than merely showing that social support or a particular style of coping results in a stress-buffering effect, to confirm the present model it would have to be shown that cognitions or events caused real or perceived losses and that social support or coping style limited these losses or enabled gain of other resources. Prior research has focused on outcome (e.g., direct versus stress-buffering effects) and not process, but outcomes alone can neither disqualify nor buttress any particular stress model.

Overall, research on stress must move from its present acceptance of studying stress as a vague, general concept and move toward direct testing of stress models. Lacking precise measurement instruments and physical laws that allow absolute standards, the social sciences must proceed through the cumbersome process of hypothesis testing of comparative models. However, the stress literature may be criticized as having many hypotheses but lacking overarching models that create competing viewpoints.

The conservation of resources model provides a perspective that may better reflect the current state of knowledge concerning stress. In addition, it leads to many testable directions that lend the model both to potential confirmation or rejection. Comparison to alternative models will be useful and may encourage researchers to adopt a more theory-based approach to their investigations. Only in this way can we possibly avoid a science that merely reflects how we wish to see things. Nowhere is this point more clear than in the study of stress.

REFERENCES


