

Chapter 8

The Determinants and Consequences of Coping with Stress

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In recent years, it has been acknowledged that individual well-being is influenced not only by the amount of stress experienced by the individual, but also by how the individual *cope*s with stress (Antonovsky, 1979; Holroyd and Lazarus, 1982; Lazarus and Launier, 1978). While there is widespread agreement concerning the importance of coping, there is little agreement concerning the meaning of coping and the mechanisms by which it influences stress and well-being. For this reason, it is difficult to organize the existing coping literature into a cohesive whole. Measures of coping have been presented (Aldwin et al., 1980; Latack, 1986; Sidle *et al.*, 1969; Stone and Neale, 1984) and the role of coping in the stress process has been examined (Folkman and Lazarus, 1980; Newton and Keenan, 1985; Pearlin and Schooler, 1978), but we still know relatively little about the specific coping strategies individuals use in dealing with stress, the process by which individuals select and implement these strategies, or the mechanisms by which coping affects stress and individual well-being.

The purpose of this chapter is to review existing theoretical approaches to coping and, based on this review, present an alternative approach.* First, major theoretical approaches to coping will be summarized, and the advantages and drawbacks of these approaches will be noted. Following this, a theoretical approach to coping will be presented which attempts to incorporate the advantages of existing theoretical approaches and to overcome their drawbacks. We will conclude with a discussion of the implications of the theoretical approach presented in this chapter for future research into coping with stress at work.

* While this chapter was originally intended to focus specifically on coping with stress at work, coping with work and nonwork sources of stress are often discussed jointly in the coping literature. Therefore, this chapter discusses coping in general terms, allowing for applications in both work and nonwork settings.

THEORETICAL APPROACHES TO COPING

This section will review major theoretical approaches to the study of coping and identify advantages and drawbacks associated with these approaches. This review is intended to provide an overview of general theoretical approaches to coping rather than a critique of any specific theory. In addition, this section focuses on theoretical rather than empirical work on coping. For reviews of empirical research on coping, see Coelho, Hamburg and Adams (1974), Lazarus and Folkman (1984b), Menaghan (1983), Silver and Wortman (1980) and Suls and Fletcher (1985).

Psychoanalytic Approaches to Coping

Investigators in the area of psychoanalytic and personality psychology have long been concerned with various forms of adjustment, including coping. In this literature, coping is typically defined in terms of realistic thoughts and actions which solve problems confronting the individual. This method of adjustment is contrasted with more primitive means, such as repression, displacement, denial of reality, and so on. Several investigators have derived classification schemes to describe these various means of adjustment. For example, the writings of Freud, Adler and Jung contain classifications of adjustment and defense mechanisms by which individuals deal with intrapsychic conflict (Rychlak, 1981). More recently, investigators such as Menninger (1963), Haan (1969, 1977) and Valliant (1977) have presented hierarchical descriptions of adjustment processes. In each of these classification schemes, coping represents the highest level of adjustment, with processes further down the hierarchy representing less reality-oriented (and thus inherently inferior) methods of adjustment.

Psychoanalytic approaches to coping are noteworthy in their rich, vivid descriptions of coping processes. Nonetheless, these approaches also contain several drawbacks. First, contact with reality is considered a necessary condition for successful coping (e.g. Haan, 1977). However, there are cases where the *denial* of reality is an effective means of coping. For example, denial may help reduce stress when the individual is initially overwhelmed by a stressful situation or appraises the situation as uncontrollable (Hamburg and Adams, 1967; Lazarus, 1983; Miller and Grant, 1979). Similarly, research on the relative efficacy of avoidant and non-avoidant coping strategies indicates that, while non-avoidant coping strategies are superior in the long run, avoidant coping strategies are generally more effective in the short run (Suls and Fletcher, 1985). Second, the psychoanalytic literature typically defines coping in terms of *successful* adjustment. That is, coping refers to successfully meeting the demands of a stressful situation, while failure to meet these demands indicates a lack of coping. However, defining coping in terms of its

outcome confounds these two variables and prevents meaningful tests of relationships between coping and well-being (Lazarus and Folkman, 1984b). As a result, we overlook cases where individual and situational variables cause similar coping strategies to yield different effects on well-being. In sum, by defining coping in terms of realistic thoughts and actions which resolve stress, psychoanalytic approaches to coping ignore cases where denial is an effective means of coping and obscure the relationship between coping and outcomes.

Coping as a Personal Trait or Style

A considerable amount of research has characterized coping in terms of relatively stable personal traits or styles. Studies adopting this approach examine the impact of a particular personality trait or coping style, such as hardiness (Kobasa, Maddi and Courington, 1981), locus of control (Lefcourt, 1985; Rotter, 1966), or Type A behavior pattern (Friedman and Rosenman, 1959; Glass, 1977), on the relationship between stress and well-being, under the assumption that individuals with certain predispositions (e.g. high hardiness, internal locus of control, Type B behavior pattern) are better able to cope with stress and therefore suffer fewer of its negative consequences. In spite of the intuitive appeal of this approach, there is little unequivocal evidence that particular personal traits or coping styles consistently lead to the attenuation of the relationship between stress and well-being (Cohen and Edwards, 1988).

The lack of support for the stress buffering effects of personal traits or styles may be partially explained by noting several conceptual and methodological problems associated with this approach. First, personal traits and styles are often poor predictors of actual situational appraisals and coping behaviors (Lazarus and Folkman, 1984b). For instance, studies examining the impact of locus of control on the relationship between stressful life events and symptomatology have found little correspondence between control orientation (internal vs external) and actual appraisals of control over stressful life events (Nelson and Cohen, 1983; Sandler and Lakey, 1982). Similarly, Cohen and Lazarus (1973) found no relationship between surgical patients' scores on the Byrne (1964) repression-sensitization scale and their desire for information concerning their illness and its treatment. Second, actual coping processes are rarely measured in this literature. Instead, coping processes are usually inferred from the personality measure under question (Lazarus and Folkman, 1984b). For instance, Kobasa (1979) assumes that 'hardy' persons react to stress with a sense of control, commitment and challenge. However, in a review of this literature, Cohen and Edwards (1988) did not find a single study where coping behaviors of hardy and non-hardy individuals were actually *measured*. Third, the personal trait and style approach to

coping implicitly assumes that coping is, for the most part, unidimensional and stable across time and situations (Lazarus and Folkman, 1984a). However, empirical evidence indicates that coping processes are multidimensional and vary over time and across situations, suggesting that characterizing coping as a single stable dimension is overly simplistic (Folkman and Lazarus, 1985; McCrae, 1984). In sum, by characterizing coping in terms of a personal trait or style, we fail to predict actual coping behaviors, rarely measure these behaviors and ignore the multidimensional and dynamic nature of actual coping responses.

Coping as a Sequence of Stages

Several researchers have described reactions to stress in terms of a series of stages through which the individual passes. This approach is particularly common in research on reactions to life-threatening illness and injury. For example, Kubler-Ross (1969) indicates that terminally ill patients pass through stages of denial, anger, bargaining, depression and acceptance. Other variants of the stage approach focus on more general sources of stress. For example, Klinger (1975) indicates that when a goal is blocked, the individual responds with increased effort toward goal attainment. If these efforts fail, aggression, depression and eventual recovery follow. Similarly, Wortman and Brehm (1975) indicate that, when an individual loses control over an important outcome, he or she exhibits increased anger, aggression and motivation to obtain the outcome. If efforts to obtain the outcome fail, passivity, depression and decreased motivation ensue. Likewise, Janis and Mann (1977) indicate that, under conditions of threat, the coping response selected by the individual is determined by his or her answers to a sequence of four questions, including: (1) whether there are serious risks if no action is taken; (2) whether there are serious risks if the most salient course of action is taken; (3) whether there is hope to find a better course of action; and (4) whether there is sufficient time to search for and deliberate alternate courses of action. As these examples indicate, the common feature of stage approaches to coping is a series of discrete responses which occur in a specific sequence.

Stage approaches to coping present several distinct advantages. First, data used to derive these approaches were usually obtained from individuals responding to stressful situations which were authentic and, in some cases, extreme (e.g. Shontz, 1975). Second, these approaches involve multiple assessments of coping efforts over time, thereby tapping the multidimensional and dynamic aspects of coping. Third, a number of these approaches address the often neglected processes underlying the selection and implementation of coping strategies (Cummings and Cooper, 1979; Janis and Mann, 1977). However, despite these advantages, empirical evidence indicates that coping

behaviors often do *not* occur in a specific sequence (Silver and Wortman, 1980). Instead, individuals seem to select from a wide array of coping strategies and implement these strategies in a variety of sequences.

The lack of empirical support for stage approaches to coping may be partially attributable to several conceptual and methodological problems associated with this approach. First, as noted by Silver and Wortman (1980), many stage approaches to coping do not specify either the exact duration of each stage or the impetus for moving from one stage to the next. Presumably, the transition from one stage to another is prompted by an internal or external cue, such as the fulfilment of some requirement or the exhaustion of some resource. However, the dimensions which influence transition from one stage to another and the thresholds which must be reached on these dimensions are rarely specified. For example, Wortman and Brehm (1975) indicate that repeated failures to obtain a desired outcome reduce the individual's expectations of control over that outcome. When a certain number of failures have been experienced, efforts to control the outcome cease, and depression, passivity and lowered motivation ensue. However, it is unclear how many failures are required or how low expectations must fall before the individual stops trying to attain the desired outcome. Similarly, the incentive-disengagement model presented by Klinger (1975) states that the duration of the stages following the obstruction of a goal may vary considerably, depending on factors such as individual differences and the nature and timing of the blocked goal. However, it is unclear what level must be attained on these factors to prompt transition to a subsequent stage. If stage models do not specify the factors influencing stage duration and transition, it is difficult to determine whether empirical data support or disconfirm these models (Silver and Wortman, 1980).

A related problem concerns whether it is reasonable to assume that individuals coping with stress pass through a predictable set of stages. Aside from the lack of empirical support for this assumption (Silver and Wortman, 1980), the complexity and variability of the person and situation factors contributing to stress suggest a corresponding complexity and variability of coping responses. Some researchers have attempted to model these person and situation factors to predict deviations from the expected sequence of stages. For example, Wortman and Brehm (1975) indicate that, if the individual does not expect control over an important outcome, he or she will not experience increased anger, aggression and motivation to obtain the outcome. Janis and Mann (1977) also indicate that individuals responding to stress may consider the predicted series of questions out of sequence. However, they do not specify the conditions under which different sequences are expected to occur. Given the extreme variability in coping responses noted above, identifying the conditions under which each permutation of coping stages occurs would be difficult, if not impossible. Again, unless the

model specifies the conditions under which the individual is expected to deviate from the standard sequence of stages, empirical data cannot disconfirm the model (Silver and Wortman, 1980).

A third problem concerns classifying individual coping efforts in terms of particular stages. Placing coping efforts into discrete categories denoted by stages is both difficult and results in the loss of information. For example, consider the coping patterns of vigilance and hypervigilance discussed by Janis and Mann (1977). Vigilance is characterized in terms of a thorough consideration of alternative courses of action and their attendant consequences, followed by a selection of the best alternative. Hypervigilance, on the other hand, occurs when the time available to consider alternatives is inadequate. When this occurs, the individual frantically considers a limited number of alternatives and hastily selects one which promises immediate payoff. These descriptions imply that we should classify a coping pattern as vigilant or hypervigilant depending upon the number of alternatives considered, the quality of the selected alternative and the speed with which the decision is made. In addition, we must select thresholds for each criteria such that coping patterns may be appropriately classified. However, the selection of these thresholds raises a number of methodological questions. How many alternatives are required to classify coping as vigilant? How do we determine whether the selected alternative is optimal? How rapidly are hypervigilant coping decisions made? Furthermore, are these criteria compensatory, such that a large number of alternatives considered rapidly is equivalent to a small number of alternatives considered slowly? Finally, once coping behaviors are classified, are we to assume that the actual coping behaviors within each category are homogeneous? As this example illustrates, determining the category to which coping behaviors belong presents a major methodological challenge. Even if this challenge is successfully met, we lose information concerning the unique characteristics of coping behaviors placed in the same category.

Coping as Specific Methods or Foci

Several investigators have conceptualized coping either in terms of specific methods of coping or in terms of specific foci of coping efforts. This approach typically involves the development of a taxonomy which classifies coping efforts either according to the method used or according to the focus, or target, of coping efforts. For example, Billings and Moos (1981) distinguish between the following methods of coping: (1) *active-cognitive*, where the individual attempts to manage his or her appraisal of the stressful situation or event, (2) *active-behavioral*, which refers to overt behavioral attempts to deal directly with the situation or event and (3) *avoidance*, where the individual attempts to avoid confronting the problem altogether. Similarly, a

number of investigators present categorization schemes which distinguish between the foci, or targets, of coping efforts (e.g. Kahn *et al.*, 1964; Lazarus and Launier, 1978; Moos and Billings, 1982; Pearlin and Schooler, 1978). The most common distinction made in these schemes involves the following two foci: (1) *problem-focused coping*, which involves attempts to manage or reduce stress by directly altering the situation or the individual's appraisal of the situation* and (2) *emotion-focused coping*, where attempts are made to regulate the emotional responses to a stressful situation. Several recent studies of stress and coping classify coping efforts by method (Menaghan, 1982; Menaghan and Merves, 1984; Newton and Keenan, 1985), focus (Billings and Moos, 1984; Folkman and Lazarus, 1980; Lazarus and Folkman, 1985; Pearlin and Schooler, 1978) or both (Billings and Moos, 1981), and examine the relationships between these coping methods or foci and type of stress experienced and/or outcomes of stress.

Conceptualizing coping in terms of specific methods or foci presents several advantages. First, this approach provides a useful taxonomy for describing coping behaviors. Second, investigations based on this approach typically include a fairly comprehensive assessment of actual coping behaviors (e.g. Folkman and Lazarus, 1980; Folkman *et al.*, 1986). On the other hand, there are several problems associated with conceptualizing coping in terms of specific methods or foci. One problem concerns the inherent difficulty in distinguishing between coping methods and foci. For instance, Moos and Billings (1982) classify coping efforts into appraisal-, problem- and emotion-focused efforts. However, each of these categories is described according to various *methods* used to cope with stress. For example, logical analysis (a form of appraisal-focused coping) is described as 'trying to identify the cause of the problem, paying attention to one aspect of the situation at a time, drawing on relevant past experiences, and mentally rehearsing possible actions and their consequences' (Moos and Billings, 1982, p. 218). While logical analysis may result in a reappraisal of the situation (i.e. appraisal-focused coping), it is defined in terms of specific *methods* by which the individual can accomplish this. Similarly, the 'Ways of Coping Checklist' used in various studies by the Lazarus group (Folkman and Lazarus, 1980, 1985), is intended to distinguish between problem- and emotion-focused coping. However, this instrument describes specific coping *methods* rather than the foci of coping efforts.

In addition to problems of distinguishing between coping methods and coping foci, the boundaries *within* each of these categories are often unclear. This is primarily because a particular coping attempt may involve a *variety* of methods or may be directed toward *multiple* foci. For example, a worker

* Moos and Billings (1982) further divide this category into (1) *problem-focused coping*, or attempts to modify or remove the source of stress and (2) *appraisal-focused coping*, or attempts to redefine the situation.

confronted with conflicting job demands may consult his or her superior in an attempt to resolve this conflict. Do we classify this method as gathering information, directly addressing the problem or seeking social support? Similarly, a given coping attempt may simultaneously address multiple foci. For instance, a student who takes a tranquilizer before a major exam may simultaneously dampen his or her emotional response and control anxiety which may interfere with exam performance. Obviously, this single act may be classified as both emotion-focused and problem-focused coping. While the difficulties associated with classifying coping methods and foci have been noted elsewhere (Lazarus and Folkman, 1984b; Moos and Billings, 1982), an adequate solution has yet to be presented.

Another problem associated with this approach is the limited attention given to the process by which individuals select specific coping methods and/or direct coping efforts toward specific foci. This process is presumably influenced by various person and situation factors, such as the degree and type of stress, the demands of coping options relative to the abilities of the individual, the perceived potential impact of coping options on the situation and the self, the degree of ambiguity in the situation, the amount of importance associated with resolving the situation, experience with similar stressors, and so on. While the importance of these factors has been discussed (Lazarus and Folkman, 1984b; Menaghan, 1983), empirical investigations of their impact on coping methods and foci are limited. Some studies have approximated these factors by examining coping in different life roles (e.g. work, family, marriage, etc.), under the assumption that differences between these roles influence coping method and focus (e.g. Folkman and Lazarus, 1980; Menaghan and Merves, 1984; Pearlin and Schooler, 1978). Several studies by Lazarus and his colleagues have incorporated these factors more directly, examining differences in coping depending upon whether respondents indicated the situation could be changed, had to be accepted, required gathering more information, or required restraint (Coyne, Aldwin and Lazarus, 1981; Folkman and Lazarus, 1980, 1985; Folkman *et al.*, 1986). While these investigations represent an important first step, a complete understanding of the determinants of stress requires an explicit and comprehensive consideration of the decision-making process influencing the selection of coping methods and foci (e.g. Janis and Mann, 1977).

A final problem concerns the lack of attention given to the mechanisms by which coping influences stress and well-being. An example of this drawback can be found in the stress and coping paradigm developed by Lazarus and his colleagues (Lazarus and Folkman, 1984b; Lazarus and Launier, 1978). According to Lazarus, stress results when an individual appraises a situation as harmful, threatening or challenging. Lazarus further states that the degree of stress associated with this appraisal is contingent upon the

strength of the commitment involved in the situation, with higher stress associated with more strongly-held commitments. With this in mind, one might argue that, in order to reduce stress, coping must influence either the situational factors contributing to the appraised harm, threat or challenge, the nature and strength of the commitment involved in the appraisal, or both. In a word, coping should influence stress by affecting the factors which *cause* stress (Edwards and Cooper, in press; Menaghan, 1983). However, investigations based on this approach which assess the relationship between coping and well-being do not examine whether this relationship is mediated by the cognitive appraisal processes described by Lazarus (e.g. Folkman and Lazarus, 1985; Folkman *et al.*, 1986). To understand the process by which coping affects well-being, we must assess the degree to which coping influences the person and situation factors presumed to cause stress.

Summary

In sum, while the approaches outlined above have provided a substantial contribution to our understanding of coping, they also present a number of conceptual and methodological problems. Psychoanalytic approaches to coping consider contact with reality to be necessary for coping to occur, even though some forms of adjustment rely upon the *denial* of reality. In addition, these approaches typically define coping in terms of successful adjustment thereby obscuring the relationship between coping and outcomes. Personal trait or style approaches to coping assume a correspondence between traits or styles and subsequent coping behaviors, though relevant studies indicate that this correspondence is often weak at best. Furthermore, the trait or style approach often describes coping as stable and unidimensional, while this is usually not the case. Stage approaches to coping often fail to specify the factors which influence stage duration and transition, underrepresent the variability found in actual coping behaviors and require the difficult task of placing these behaviors into discrete categories. Describing coping in terms of specific methods or foci also contains drawbacks, such as difficulty in distinguishing various methods and foci, incomplete consideration of the determinants of coping method and focus, and inattention to the mechanisms by which coping influences stress and well-being.

In the following section, a theoretical approach to coping will be presented which draws from the advantages of the approaches described above and attempts to overcome their drawbacks. Following this, the determinants of coping will be discussed, focusing on the process by which individuals select and implement coping strategies. Next, the consequences of coping will be discussed, focusing on how coping affects the determinants of stress and how coping itself may act as a source of stress. The chapter will conclude with a

discussion of the implications of the model for research on coping with stress at work.

A THEORETICAL APPROACH TO COPING

This section presents a theoretical approach to coping which builds upon existing approaches to stress and coping and draws from the control theory, decision-making and motivation literatures. As will be seen, this approach presents the basic elements of a *process* theory of coping. That is, rather than adopting a content theoretic approach, describing specific individual and situational characteristics which may influence coping or categorizing various methods by which individuals cope, this approach emphasizes the process by which person and situation factors combine to influence coping and the mechanisms by which coping, in turn, influences stress and well-being (cf. Campbell *et al.*, 1970). A central assumption in this approach is that stress experienced by the individual produces negative impacts on well-being and motivation to minimize these impacts (Duval and Wicklund, 1972; Raynor, 1982). This motivation is reflected in coping, which is directed toward the person and situation factors which cause stress. If attempts to alter these factors are successful, stress is reduced and well-being is improved. Thus, coping is viewed as a critical component of a negative feedback loop, representing the means by which the individual affects the determinants of stress and thereby attenuates the deleterious impacts of stress on well-being (cf. Carver and Scheier, 1981, 1982; Cummings and Cooper, 1979; Katz and Kahn, 1978; Leventhal, Nerenz and Strauss, 1980; McGrath, 1976; Powers, 1973; Schwartz, 1983).

Overview of the Model

The theoretical approach to coping described in this chapter is derived from a general process theory of stress and coping currently under development. As will be seen, this model draws from the stress and coping literature and incorporates elements of the motivation, decision-making and control theory literatures.

Before presenting the model, let us first define the concepts of stress and coping. *Stress* is defined here as *a negative discrepancy between an individual's perceived state and desired state, provided that the presence of this discrepancy is considered important by the individual*. The term *negative discrepancy* indicates that stress exists when the individual's perceived state *falls short* of his or her desired state. This definition of stress is consistent with other definitions which involve the relationship between the individual's preferences and environmental characteristics (e.g. Cummings and Cooper, 1979; French, Rogers and Cobb, 1974; Schuler, 1980). These definitions may be

contrasted with those which involve the relationship between environmental demands and individual abilities (e.g. Lazarus and Folkman, 1984b; McGrath, 1976; Sells, 1970).^{*} While these two classes of definitions appear inconsistent on the surface, Harrison (1978) notes that a discrepancy between demands and abilities produces stress only when (1) the individual consciously desires to meet the demand or (2) the satisfaction of individual motives or desires is contingent upon meeting the demand. In other words, a situation where demands exceed abilities is defined as stressful only when demands actually represent a desire which the individual is unable to fulfill, or when the demands associated with the resolution of a discrepancy between perceptions and desires exceed the individual's abilities. Thus, definitions comparing demands and abilities implicitly include a discrepancy between perceptions and desires. Because of this, we will define stress explicitly in terms of a discrepancy between perceptions and desires. The comparison between situational demands and individual abilities will be incorporated into the concept of coping, as discussed below.

According to the model, stress will lead to two classes of outcomes. One class includes various dimensions of psychological and physiological well-being which represent the mental and physical health of the individual. The other class of outcomes consists of attempts to reduce the negative impacts of stress on individual well-being. We will refer to these *efforts to reduce the negative impacts of stress on individual well-being* as *coping*. These efforts are directed toward the determinants of stress, i.e. the perceptions and desires involved in the discrepancy and/or the amount of importance associated with the discrepancy. The success or failure of coping will depend upon a variety of factors, such as the magnitude and nature of the demands associated with the resolution of the discrepancy, individual resources, such as ability, energy, time, etc., and various situational factors. When the individual is able to meet the demands associated with resolving the discrepancy, stress will be reduced, and individual well-being will be improved. On the other hand, when the individual is unable to meet the demands associated with resolving the discrepancy, stress will, in most cases, persist, and individual well-being will deteriorate.

Figure 1 depicts a theoretical model which incorporates the definitions of stress and coping presented above. While this model may appear somewhat forbidding at first, its essential elements are rather straightforward. The process starts with the individual's *perception* of a particular life facet. This life facet may be a dimension of the individual's physical or social environ-

^{*} This definition may also be contrasted with those which define stress in terms of environmental stimuli (e.g. Caplan et al., 1975; Dohrenwend and Dohrenwend 1974; Holmes and Rahe 1967) or individual responses (e.g. Ivancevich and Matteson, 1980; Parker and DeCotiis, 1983; Selye, 1956). The shortcomings of stimulus and response definitions of stress are aptly described elsewhere and will not be reiterated here (e.g. Lazarus and Folkham, 1984b; Schuler, 1980).

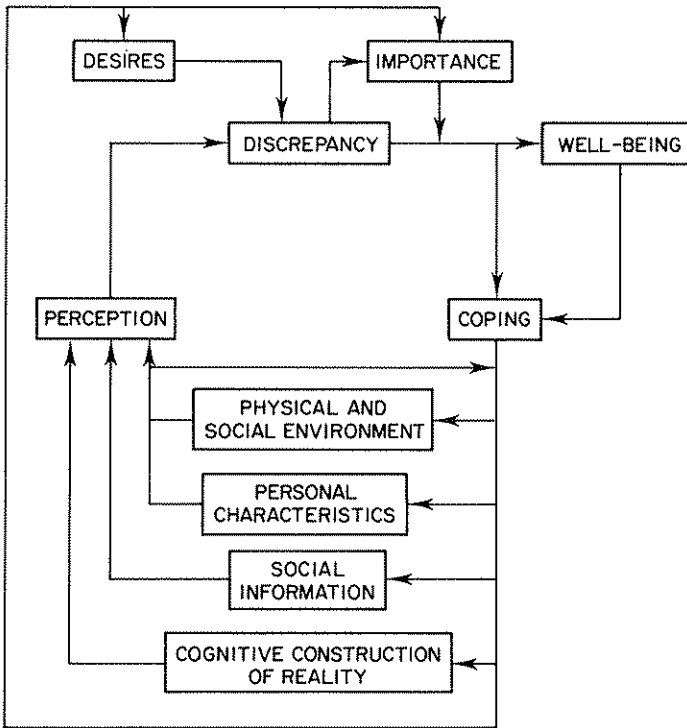


Figure 1 A model of stress and coping

ment or one of the individual's own personal characteristics or qualities. As indicated in the model, this perception is influenced not only by attributes of the individual and his or her physical and social environment, but also by social information available to the individual (Salancik and Pfeffer, 1978) and the individual's own cognitive construction of reality (Weick, 1979). Perceptions associated with the life facet are then compared against *desires* associated with this facet, resulting in the presence or absence of a *discrepancy* between perceptions and desires. This discrepancy affects *importance* such that greater importance is associated with larger discrepancies between perceptions and desires. The discrepancy also affects the two classes of outcomes noted above, including (1) the individual's psychological and physiological *well-being* and (2) *coping*, i.e. individual efforts to alleviate these negative impacts on well-being. As indicated in the model, the amount of importance associated with the presence of the discrepancy moderates the relationship between the discrepancy and both individual well-being and coping, with higher importance associated with greater impacts of the discrepancy on well-being as well as increased coping efforts (cf. Mobley and Locke, 1970; Naylor, Pritchard and Ilgen., 1980; Rice *et al.*, 1985). Coping may also

be directly influenced by well-being, as when coping occurs after damage to well-being has been sustained. Coping, in turn, influences the determinants of stress through six basic pathways: (1) by directly changing relevant aspects of the individual's physical and social environment; (2) by changing an aspect of the self (i.e. a personal characteristic); (3) by challenging the social information upon which perceptions are based; (4) by affecting the individual's cognitive construction of reality, such that perceptions are either removed from awareness (i.e. denial) or are changed without actually changing the environment or the self; (5) by adjusting desires in order to reduce the discrepancy; (6) by decreasing the amount of importance associated with the presence of the discrepancy. Overall, the process depicted in the model consists of a negative feedback loop, where discrepancies between perceptions and desires affect individual well-being and lead to efforts to resolve the discrepancy, a re-evaluation of the discrepancy, and so on. The model of stress and coping presented here is consistent with other applications of cybernetic or control theory in the psychological literature (Buckley, 1968; Carver and Scheier, 1981, 1982; Miller, 1965; Powers, 1973), particularly those which focus on stress and coping (Cummings and Cooper, 1979; Katz and Kahn, 1978; McGrath, 1976; Scheier and Carver, 1985; Schwartz, 1983).

THE DETERMINANTS OF COPING

The model described above outlines the pathways by which coping may affect the determinants of stress. For each pathway, there are numerous specific coping alternatives the individual may implement to influence stress. The existence of these multiple coping alternatives indicates that an individual under stress may select from a wide variety of coping strategies. Several investigators have developed measures which attempt to reflect the variety of coping strategies available to the individual (e.g. Aldwin *et al.*, 1980; Billings and Moos, 1981; Latack, 1986; Sidle *et al.*, 1969). The present discussion is intended to complement these efforts by focusing on the decision-making process underlying the selection of coping strategies.

When considering the process by which individuals select coping strategies, it is tempting to conclude that individuals under stress consciously generate a comprehensive set of coping alternatives, evaluate the potential consequences of each alternative, and select the strategy which minimizes stress and maximizes well-being. However, research in the decision-making area suggests that individuals seldom adopt such a thorough, rational approach. Instead, people systematically violate the principles of rational decision making when generating, evaluating and selecting alternative courses of action (March and Simon, 1958; Simon, 1976; Slovic, Fischhoff and Lichtenstein, 1976, 1977). This suggests that individuals under stress will demonstrate a corresponding lack of rationality when selecting coping strategies,

relying on routine programs and heuristics, simplifying assumptions, and satisficing techniques. These decision-making processes will tend to result in the selection of coping strategies which are suboptimal and, in some cases, ineffective.

While individuals will rarely, if ever, adopt a rational approach to the selection of coping strategies (Simon, 1976), such an approach provides a useful point of departure to describe and evaluate how individuals actually select coping strategies (Barclay, Beach and Braithwaite, 1971). Furthermore, by outlining the dimensions of the effective selection of coping strategies, we can derive recommendations for the facilitation of coping efforts (D'Zurilla and Goldfried, 1971; Spivack, Platt and Shure, 1976). To fulfill these objectives, the following discussion will describe a normative model of the selection of coping strategies, under the assumption of rational decision making. Following this, we will draw from the decision-making literature to determine the conditions under which individuals will depart from this rational approach to coping, resulting in a descriptive model of the selection of coping strategies.

A Normative Model of the Selection of Coping Strategies

By definition, a normative approach to the selection of coping strategies assumes an underlying rational decision-making process. Following Simon (1976), the rational selection of coping strategies requires: (1) viewing all coping strategies prior to selection, (2) considering all potential consequences of each strategy and (3) selecting one strategy which minimizes stress and maximizes well-being. To meet the first requirement, the individual must generate an exhaustive array of alternative coping strategies for consideration. As indicated earlier, these alternatives would involve altering the determinants of stress, including changing perceptions by modifying relevant aspects of the environment, the individual, social information available to the individual and the individual's own cognitive construction of reality, adjusting desires in order to reduce the discrepancy between perceptions and desires, and decreasing the amount of importance associated with the discrepancy. The generation of these alternatives may be facilitated by attempting to determine the cause of experienced stress, with specific coping behaviors focusing on the hypothesized causal factors. After deriving an exhaustive array of potential coping strategies, the individual would proceed with their evaluation, as discussed below.

The second requirement of rational coping strategy selection involves the consideration of all potential consequences of each coping strategy. This includes two primary considerations: (1) *perceived efficacy*, which refers to the individual's belief that he or she can successfully execute the coping strategy under consideration and (2) *perceived potential impact on well-being*,

which refers to the individual's assessment of the potential improvement or deterioration in well-being associated with the coping strategy under consideration. As defined here, perceived efficacy is analogous to Bandura's concept of efficacy expectancy (Bandura, 1977) and the concept of expectancy found in expectancy theory and its variants (Georgopoulos, Mahoney and Jones, 1957; Porter and Lawler, 1968; Tolman, 1932; Vroom, 1964). Perceived efficacy is determined by a comparison of the demands associated with the coping strategy under consideration against individual resources (e.g. abilities, social supports, material assets) available to meet these demands, a process analogous to Lazarus' concept of secondary appraisal (Lazarus and Folkman, 1984b). The efficacy estimate produced by this comparison process often involves some degree of uncertainty (cf. Luce and Suppes, 1965), and this level of uncertainty will influence the individual's evaluation of each coping strategy, depending on his or her preference for uncertainty (cf. Archer, 1979; Berlyne, 1960; Lazarus and Folkman, 1984b; McGrath, 1976). In some cases, a given coping strategy may succeed if any of a number of independent conditions are met. In other cases, a given coping strategy may involve multiple contingencies, each of which must be met in order for the coping strategy to succeed. When multiple contingencies are involved, the individual would multiply the probabilities of satisfying each contingency to derive an overall efficacy estimate. Holding other factors constant, the individual will select a coping strategy which has the maximum likelihood of success. If this is not feasible, the individual would abstain from coping, which would typically result in the persistence of stress and the deterioration of well-being (Coyne *et al.*, 1981; Seligman, 1975).

The second consideration is the perceived potential impact of coping strategies on well-being. This refers to the individual's assessment of the potential improvement or deterioration in well-being associated with each coping strategy under consideration, similar to the concept of valence in expectancy theory (e.g. Naylor, Pritchard and Ilgen, 1980; Vroom, 1964). The perceived potential impact of coping strategies on well-being is influenced by three factors. One factor is the anticipated impact of each coping strategy on the stressful situation toward which coping efforts are directed. This refers to the assessment of whether the coping strategy under consideration, if successfully implemented, will have a beneficial or deleterious impact on experienced stress. A second factor involves the anticipated impact of each coping strategy on stress associated with other life facets. That is, a given coping strategy may benefit the stressful situation in question but threaten desires, values and goals associated with other life facets (Lazarus and Launier, 1978). A third factor concerns the anticipated impact of the implementation of each coping strategy *itself* on well-being (Cohen *et al.*, 1986; Edwards and Cooper, in press). For example, the individual may view the implementation of a coping strategy as potentially enjoyable, as when coping consists of taking

an extended vacation. On the other hand, certain coping strategies may be viewed as inherently aversive, as when an individual copes with excessive job demands by working evenings and weekends. Following the normative model, the individual would rank-order the alternative coping strategies in terms of well-being by jointly considering their expected impact on experienced stress, their potential impact on stress associated with other life facets and their inherent attractiveness and aversiveness.

The third requirement of rational coping is the selection of the coping strategy which maximizes well-being. To meet this requirement, the individual must simply select and implement the coping strategy which, according to the rank-ordering process described above, is considered optimal in terms of well-being. In cases where the perceived potential damage to well-being of any coping strategy exceeds the deleterious impacts of experienced stress, the individual would abstain from coping, resulting in continued stress and further deterioration of well-being.

A Descriptive Model of the Selection of Coping Strategies

As indicated earlier, individuals will rarely adopt the rational approach to the selection of coping strategies described above. However, this approach provides a useful point of departure for deriving a descriptive model of the selection of coping strategies. To derive this descriptive model, we will consider each requirement for the rational selection of coping strategies and attempt to specify the conditions under which the individual will deviate from these requirements.

First, let us consider the generation of coping alternatives. According to the normative model, individuals under stress would generate an exhaustive array of coping alternatives and consider these alternatives simultaneously. However, in most instances, coping alternatives are not obvious, and generating feasible alternatives is difficult (MacCrimmon and Taylor, 1976). Because of this, the individual is likely to consider a very limited number of alternatives (Simon, 1976). The number and type of coping alternatives generated, and the effort the individual is willing to apply to their generation, will depend upon several factors. One factor is the level of stress experienced by the individual. Several investigators suggest that individuals experiencing low levels of stress will consider coping strategies used in similar coping instances, while individuals experiencing intense or prolonged stress will attempt to formulate new strategies (Hamburg and Adams, 1967; Janis and Mann, 1977; Weiss, Ilgen and Sharbaugh, 1982). However, while increased stress may motivate the individual to generate a broader array of coping alternatives, it may also produce emotional upset and mental confusion, thereby encouraging desperate and primitive modes of coping such as rage, panic, or defense mechanisms (Lazarus and Launier, 1978). Hence, as stress

increases, motivation to generate coping alternatives would increase, while ability to generate these alternatives would decrease. A second factor is the amount of importance associated with the desire involved in the stressful situation. As importance increases, the individual will expend more energy toward the generation of coping alternatives (Simon, 1976). A third factor is the time available to generate coping alternatives. Following Janis and Mann (1977), as the time available to generate coping alternatives decreases, the individual will tend to use simple-minded decision rules (e.g. do whatever the others around you are doing, do what worked last time), thereby overlooking superior alternatives. A fourth factor is experience with the same or similar sources of stress. If the individual has had relevant experience, he or she will tend to consider coping alternatives which have worked well in the past and avoid those which have worked poorly (MacCrimmon and Taylor, 1976). A fifth factor is the availability of social information from others who have coped with similar stressful circumstances. As the amount of relevant and credible social information increases, the individual will rely more on this information rather than generating his or her own unique set of coping alternatives (Simon, 1976). A sixth factor is based on the notion that individuals consider coping alternatives *sequentially* rather than simultaneously. This is due, in part, to the fact that the number of potential coping alternatives usually far exceeds the individual's short-term memory capacity of seven, plus or minus two (Miller, 1956). Because of this, the individual will tend to consider coping alternatives sequentially and terminate the search when an acceptable alternative has been identified (Janis and Mann, 1977; Simon, 1976). The longer it takes to identify such an acceptable alternative, the more alternatives will be considered. Thus, stress, importance, time, experience, social information and the sequential process by which coping alternatives are considered may each influence the number and type of coping alternatives generated.

Let us now examine the manner in which coping alternatives are evaluated. First, consider the determination of perceived efficacy. Because perceived efficacy concerns future events, it is necessarily based on probabilistic information. Following the normative model, we would assume that the individual would cognitively process this information. However, several investigators indicate that, rather than processing this information, individuals typically derive a general, often intuitive assessment of perceived efficacy (Goodman, Rose and Furcon, 1970; Kahneman and Tversky, 1973; Naylor *et al.*, 1980). The degree to which individuals attempt to process this probabilistic information, as opposed to relying on intuitive assessments, may depend upon several factors. A number of these factors were also relevant in the generation of coping alternatives, as described earlier. For example, as the level of stress experienced by the individual increases, the individual's desire to relieve this stress would increase, thereby heightening his or her efforts to identify a

coping strategy with a high likelihood of success. Similarly, as the importance associated with the threatened desire increases, the individual may expend more energy determining the likelihood that each coping alternative may be successfully executed (Simon, 1976). The amount of time available should also influence the individual's desire to evaluate each coping strategy, such that increased time will prompt more reflection and thought (Lazarus and Launier, 1978; Janis and Mann, 1977). Furthermore, as prior experience with the coping strategies under consideration increases, the individual will rely more on this experience rather than attempting to re-evaluate the likelihood of success of coping strategy (Seligman, 1975; Wortman and Brehm, 1975). Finally, the individual may consider social information, drawing from the experience of similar others to determine the likelihood of success of each coping strategy under consideration (Simon, 1976).

A number of additional factors may influence the amount of effort the individual will expend in the determination of perceived efficacy. For instance, as the perceived costs associated with the implementation of each coping strategy increases, the individual will expend more energy to determine whether each coping strategy, if implemented, will indeed succeed. In addition, the level of ambiguity associated with the situation will influence perceived efficacy such that, as ambiguity increases, individuals will expend less energy to determine whether each coping strategy will succeed and will rely more on general belief systems (i.e. locus of control, self-efficacy) (Lazarus and Folkman, 1984a; Menaghan, 1983). Thus, level of stress, importance, time, experience, social information, the costs of coping and ambiguity may each influence the effort expended by the individual toward the determination of perceived efficacy.

While the factors mentioned above may influence individual effort toward the determination of perceived efficacy, actually determining all potential consequences of each coping strategy would require the individual to process so much information that his or her mental capabilities would be exceeded (Janis and Mann, 1977). Furthermore, as Tversky and Kahneman (1974) point out, individuals make systematic errors when processing such information. For example, individuals will tend to overestimate the overall likelihood of success of the coping strategy when it requires the satisfaction of multiple conditions. Conversely, individuals will tend to underestimate the overall likelihood of success of a coping strategy when it requires the satisfaction of only one of several conditions. Furthermore, the individual will often overgeneralize from very limited prior experience with the coping strategies under consideration, such that coping strategies which have worked in the past will be viewed as sure winners, while coping strategies which have not worked will be viewed as doomed to failure (Tversky and Kahneman, 1971). Aside from these constraints, the individual must determine the potential success of each coping alternative while under stress, which may further

interfere with information processing (Folkman, Schaefer and Lazarus, 1979). Thus, in spite of individual efforts to assess the likelihood of success of coping alternatives, these assessments will generally be biased and inaccurate.

Let us now consider the evaluation of the perceived potential impact of each coping strategy on well-being. Following the normative model, the individual would evaluate each coping alternative in terms of its impact on experienced stress, its effect on stress associated with other life facets, and its inherent attractiveness or aversiveness, resulting in a rank ordering of each coping alternative in terms of well-being. However, the decision-making literature suggests that individuals will often employ much simpler methods in the evaluation of coping alternatives. Following Simon (1976), the individual may evaluate coping alternatives against some minimum criteria of well-being and terminate the evaluation process when an acceptable alternative has been identified. An even simpler strategy would involve sequentially considering coping alternatives until one which will minimally improve current well-being is identified (Lindblom, 1959; Miller and Starr, 1967). Alternately, the individual may sequentially consider the most important attributes of a set of coping alternatives and successively reject those alternatives which are unsatisfactory on the attribute under consideration (Tversky, 1972). Once the set of alternatives has been reduced, individuals may employ compensatory strategies, comparing the advantages and disadvantages of the remaining alternatives (Payne, 1976, 1982). Perhaps the simplest strategy would be to minimize the evaluation of coping alternatives altogether by simply selecting an alternative which has produced acceptable outcomes in the past (Merton, 1936).

As noted by Slovic *et al.* (1977), satisficing approaches, such as those described above, require less cognitive effort than the rational approach described earlier. While the individual will often prefer approaches which require less effort (Beach and Mitchell, 1978), several factors may influence the amount of effort the individual will expend in evaluating the impacts of alternative coping strategies on well-being. A number of these factors were also relevant in the generation of coping alternatives and the determination of perceived efficacy. For example, if experienced stress is severe, the individual will probably attempt to identify a coping alternative which will significantly improve well-being. Similarly, as the importance associated with desire involved in the stressful situation increases, the individual may direct more effort toward the selection of the best available coping strategy (Simon, 1976). In addition, as the time available to evaluate coping alternatives decreases, individuals are more likely to give coping alternatives only superficial consideration, thereby failing to notice obvious defects and advantages of each alternative (Hamburg and Adams, 1967; Janis and Mann, 1977). Also, as experience with the coping strategies under consideration increases, the individual will draw more from this information to determine the potential

impact of each coping strategy on well-being. Furthermore, the individual may draw from social information, considering the well-being of others who have implemented similar coping strategies (Salancik and Pfeffer, 1978).

The factors described above will influence individual efforts to rank order each coping strategy in terms of well-being. However, in spite of these efforts, the fact remains that the selection of coping strategies is based on *anticipated* well-being. Following Simon (1976), the anticipation of the consequences of each coping strategy can hardly have the same emotional impact as their actual occurrence. Therefore, the evaluation of coping alternatives in terms of well-being is limited by the individual's ability to anticipate the consequences of each alternative and to give these consequences the same value in anticipation as they will receive in actual experience.

Finally, let us consider the selection of coping strategies. Following the normative model, the individual would select the coping strategy which, based on his or her evaluation of the alternatives, will maximize well-being. Again, the decision-making literature suggests that individuals under stress rarely attempt to maximize well-being through the selection of coping strategies. Instead, individuals will often select a coping strategy which will achieve a minimum acceptable level of well-being (Simon, 1976). Alternately, the individual may select a coping strategy such that well-being is marginally improved (Lindblom, 1959). Furthermore, recent research suggests that some individuals may not seek to improve well-being at all. For example, consider negative affectivity, which Watson and Clark (1984) describe as a disposition to experience negative affect across time and regardless of the situation. This construct is intuitively appealing, as it is not difficult to recall individuals who, despite both positive and negative experiences, appear chronically discontent. One mechanism behind negative affectivity may be the active selection of coping strategies which preserve a customary level of affect. That is, rather than selecting coping strategies which maximize well-being, the individual selects coping strategies which maintain a homeostatic level of affect. In cases where this homeostatic level refers to anxiety, depression, or upset, the individual will manifest a state consistent with negative affectivity. Thus, rather than selecting coping strategies which maximize well-being, individuals are likely to select coping strategies which meet some minimal criteria, which marginally improve current well-being, or, in some cases, which preserve a customary level of affect.

In sum, the descriptive model of the selection of coping strategies differs from the normative model in a number of fundamental ways. Rather than generating a comprehensive array of coping alternatives, evaluating the likelihood of success and potential consequences of each alternative and selecting the alternative which maximizes well-being, individuals will tend to consider a limited number of coping alternatives, evaluate these alternatives in a superficial and erroneous manner, and select an alternative which is subop-

timal in terms of well-being. The amount of effort the individual applies to the generation, evaluation and selection of coping strategies depends on a variety of factors, including level of stress, importance, time, experience, social information and ambiguity. While these factors were discussed separately, they are certainly interrelated and are therefore likely to have direct, indirect and interactive effects on the amount of effort applied to the coping strategy selection process. However, in spite of these efforts, cognitive limits to rationality will generally preclude the selection of coping strategies as prescribed by the normative model. It is hoped that the preceding discussion will help to inform future research into the manner in which individuals actually generate, evaluate and select coping strategies, and the factors which influence this process.

THE CONSEQUENCES OF COPING

The preceding section involved the determinants of coping, focusing on the manner in which coping strategies are selected. To complement this, the present section focuses on the consequences of coping, highlighting the process by which coping affects stress and well-being. As indicated in Figure 1, coping influences well-being by affecting the determinants of stress. In other words, regardless of the particular characteristics of the coping strategy in use, its impact is mediated by the alteration of the perceptions, desires and importance which characterize experienced stress. For example, coping may reduce stress by changing perceptions. As indicated in Figure 1, this occurs through the alteration of the *determinants* of perceptions outlined earlier. For instance, the individual may alter his or her physical and social environment or change a personal characteristic, an approach typically labeled problem-focused coping (Lazarus and Folkman, 1984b; Lazarus and Launier, 1978; Moos and Billings, 1982). Alternately, the individual may alter perceptions by changing information contained in his or her social environment, either by challenging existing sources of information or by seeking new sources. Finally, the individual may alter his or her perceptions by cognitively reconstructing reality. In other words, the individual may deny a stressful situation or simply focus on a different, less stressful situation (Lazarus, 1983; Miller and Grant, 1979), a process often referred to as appraisal-focused coping (Moos and Billings, 1982). Regardless of their particular characteristics, coping strategies which focus on the alteration of perceptions reduce stress by making perceptions more consistent with desires or by removing perceptions from awareness altogether.

As indicated in Figure 1, coping may also consist of the alteration of *desires*. That is, an individual may reduce a discrepancy between perceptions and desires by adjusting desires, leaving perceptions intact (Strauss, 1974). For example, an individual may reduce a discrepancy between perceived and

desired job performance by adjusting performance aspirations, deciding that his or her performance is, in fact, adequate. Coping may also consist of changing the amount of *importance* associated with a discrepancy between perceptions and desires. In other words, an individual may reduce stress by deciding that a discrepancy between perceptions and desires is not as important as once believed (Pearlin, 1980; Sherwood, 1965). In sum, the implementation of a method of coping affects stress through the alteration of the perceptions, desires and importance which constitute the stressful discrepancy under consideration. This basic assumption is crucial to the understanding of stress and coping in terms of a negative feedback loop, as described earlier (cf. Carver and Scheier, 1981; Cummings and Cooper, 1979; McGrath, 1976).

As indicated in Figure 1, personal characteristics influence the impact of the implementation of a coping strategy on the determinants of stress. Personal characteristics include skills, abilities and personality traits which may be relevant for the successful implementation of the selected method of coping (cf. Porter and Lawler, 1968). For example, a skilled mechanic is likely to cope with stress associated with an automobile malfunction more successfully than an individual with no experience in automobile repair. Personality traits may also influence the effects of coping, particularly when the situation is ambiguous (Lazarus and Folkman, 1984a). For example, individuals with an internal locus of control tend to be relatively more resistant to the deleterious impacts of stressful life events than individuals with an external locus of control (Johnson and Sarason, 1978; Lefcourt *et al.*, 1981; Sandler and Lakey, 1982). One explanation for this effect is that internals do indeed possess skills which allow them to personally control their environment. If these skills are relevant to a given stressful situation, then the likelihood of successfully coping with the stressful situation increases. In addition, individuals who display Type A behavior pattern are relatively more likely to suffer from the deleterious effects of stress, particularly when stress occurs in the context of challenging, competitive or uncontrollable situations (Glass, 1977). One possible explanation for this effect is that Type As implement coping strategies in an aggressive and impatient manner, while Type Bs adopt a slower, more methodical approach. As a result, Type As exhibit higher levels of sustained arousal while coping with stress, resulting in increased risk of disease (Jenkins, 1978). While skills, abilities and personality traits such as those described above are, by definition, relatively stable and enduring, it must be emphasized that their impacts on stress are highly variable, depending upon the specific demands elicited by the coping strategy in use.

Factors in the individual's physical and social environment also influence the effects of coping strategies (see Figure 1). Physical environmental factors include a variety of conditions, such as distance, weather and physical barriers. For example, a married couple may be physically separated for an

extended period, preventing the successful resolution of marital problems. Social relationships or arrangements may also influence the impact of coping efforts on the determinants of stress (Cohen and McKay, 1984; House, 1981). For example, a co-worker may provide material or emotional support while an individual attempts to cope with a stressful situation. On the other hand, certain social relationships may impede coping efforts, as when an individual is berated by his or her co-workers for giving up trendy but unhealthy behaviors. As with personal characteristics, physical and social environmental factors may facilitate or impede coping efforts, depending on the requirements of the selected method of coping.

In the preceding section, it was noted that coping may influence stress associated with other life facets (Lazarus and Launier, 1978). This process may be clarified through the application of the model of stress and coping presented earlier. The notion that coping may influence stress associated with other life facets is based on the assumption that coping directed toward perceptions, desires, and importance associated with a particular life facet may intentionally or unintentionally influence perceptions, desires, and importance associated with other life facets. For example, if a supervisor copes with poor subordinate performance by providing additional resources and assistance to the subordinate, the performance of other subordinates may suffer. Conversely, if a manager copes with an unfair performance appraisal system by devaluing the overall importance of his or her job, then stress associated with other job factors may be reduced. In general, the amount of stress associated with other life facets will be contingent upon the impact of coping on the magnitudes of the discrepancies between perceptions and desires associated with each life facet, weighted by the amount of importance associated with these discrepancies.

The preceding section also indicated that the implementation of a coping strategy itself may influence well-being (Cohen *et al.*, 1986). Again, this process may be clarified by applying the model of stress and coping presented earlier. In particular, the amount of stress associated with a coping strategy is determined by the magnitude of the discrepancy between perceptions and desires associated with the coping strategy, weighted by the amount of importance associated with this discrepancy. For example, a coping strategy may involve activities which the individual finds inherently undesirable, such as facing a punitive supervisor. On the other hand, coping may involve activities which are inherently enjoyable to the individual, such as watching humorous movies or engaging in relaxation techniques (Benson, 1976; Cousins, 1976). Further, the duration of the discrepancy between perceptions and desires associated with a coping strategy will affect its impact on well-being, with longer duration associated with greater cumulative effects. When the implementation of a coping strategy is rather quick, as when coping with an illness simply involves receiving an injection, the cumulative impact of

the implementation of the coping strategy will be relatively limited. On the other hand, when the implementation of a coping strategy requires prolonged effort, as when coping with job demands involves working overtime for an extended period, the cumulative impact of the implementation of the coping strategy may be quite severe. Prolonged coping efforts may also lead to fatigue and exhaustion in the individual (Selye, 1956), thereby damaging well-being and preventing effective coping with other stressful situations. Thus, the implementations of a coping strategy itself may cause stress, and this process must be considered in order to understanding of the overall effect of coping on individual well-being.

In sum, the consequences of coping consist of the alteration of the basic determinants of experienced stress. That is, regardless of the particular characteristics of the coping strategy in use, its ultimate impact on stress and well-being occurs through the alteration of the perceptions, desires and importance which constitute experienced stress. In addition, coping may affect stress associated with other life facets by influencing perceptions, desires and importance associated with these facets. Furthermore, the implementation of the coping strategy itself may serve as a source of stress, producing an effect on well-being which is distinct from the effects of the stressful experience toward which coping efforts are directed. The examination of the impacts of coping on the determinants of stress, on stress associated with other life facets, and stress associated with coping itself represents a fruitful area for future research.

IMPLICATIONS FOR FUTURE RESEARCH

The discussion of the determinants and consequences of coping presented in this chapter suggests several important implications for future coping research. The determinants of coping emphasized in this chapter consist of the decision-making process underlying the selection of coping strategies and the factors which influence this process. This decision-making process has been largely overlooked in the coping literature. Studies which have examined the determinants of coping have primarily focused on coping associated with different problem areas (Folkman and Lazarus, 1980; Menaghan and Merves, 1984; Pearlin and Schooler, 1978), different types of problems (McCrae, 1984), or different phases of a problem (Folkman and Lazarus, 1985). Implicit in these studies is the assumption that factors associated with problem area, type, or phase influence the selection of one coping strategy over another. A number of studies have begun to address these factors (Coyne, Aldwin and Lazarus, 1981; Folkman and Lazarus, 1980, 1985; Folkman *et al.*, 1986), and these studies represent an important initial step. By including a broader array of factors which may influence the selection of coping strategies, such as those discussed earlier, future coping research may

clarify differences in coping across individuals and within individuals across situations. The decision-making process underlying the selection of coping strategies may be further illuminated through process-tracing studies, where subjects verbalize the coping strategy selection process (cf. Payne, 1976). By explicitly considering the decision-making process underlying the selection of coping strategies and the factors which influence this process, future coping research will help uncover not only *how* individuals under stress cope, but *why* they cope as they do.

The consequences of coping discussed in this chapter also present several implications for future research. The consequences of coping emphasized in this chapter consisted of the impacts of coping in the *determinants* of stress, i.e. the discrepancy between perceptions and desires and the importance associated with this discrepancy. Previous coping research has focused primarily on the direct effects of coping on well-being (Pearlin and Schooler, 1978; Billings and Moos, 1982; Folkman and Lazarus, 1985). A limited number of studies have also examined the impact of coping on reported problem resolution, which may approximate the resolution of the discrepancy between perceptions and desires or the reduction of the importance associated with this discrepancy (Folkman *et al.*, 1986; McCrae and Costa, 1986; Menaghan and Merves, 1984). While these studies are informative, they fail to examine whether the impact of coping is *mediated* by the determinants of stress. If our models correctly specify the constructs which constitute stress, then the impact of coping on well-being should be mediated by these constructs. The model of stress and coping presented in Figure 1 makes this explicit, indicating that stress damages well-being and stimulates coping which, in turn, is directed toward the perceptions, desires and importance associated with the stressful situation. By examining the impact of coping on the determinants of stress, future coping research will help identify the *process* by which coping affects stress and influence well-being.

SUMMARY

The aim of this chapter was to review major theoretical approaches to the study of coping, identify advantages and drawbacks associated with these approaches, and present an alternative approach, focusing on the determinants and consequences of coping with stress. The intention of this discussion was not to critique the approach adopted by a particular researcher, but to evaluate general themes and approaches found in the coping literature. The alternative approach to coping presented in this chapter viewed stress and coping in terms of a negative feedback loop, where a discrepancy between perceptions and desires and the importance associated with this discrepancy combine to produce stress. Stress, in turn, influences well-being and motivates the individual to cope with coping efforts directed toward the causes

of stress, i.e. the discrepancy between perceptions and desires and/or the importance associated with this discrepancy. This approach gave explicit consideration to the decision-making process underlying the selection of coping strategies and the mechanisms by which coping influences stress and well-being. Future research will determine the validity of the theoretical approach presented in this chapter and, hopefully, shed additional light on the determinants and consequences of coping with stress.

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