Learning How to Learn From Experience:
Impact of Stress and Coping

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July 1992

Post Office Box 26300
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Stock Number 154

ISBN-0-912879-48-3

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Acknowledgements

Acknowledging everyone who made the stress research project happen is an impossible task, but the first author is particularly in the debt of the 249 busy managers who invested both time and trust in opening up all aspects of their lives to an inquisitive team of researchers. They responded to probing questions and an endless stream of psychological instruments with a cheerful and patient dedication that exceeded expectations. They have confirmed my faith in the willingness of people to give of themselves in research programs if they can see the potential for valuable outcomes. I truly hope that these managers came away from the project believing that they too learned much from the experience.

Countless professionals contributed to the stress research program. Special thanks go to Jeff Jones for his creativity and insight and his hard work in launching the project and carrying out the early years. Mark Brostaff and Nancy Hicks played key roles both in extending the research to women managers and in helping to analyze and make sense of the enormous mass of data collected over the years.

Doug Bray, Joel Moses, and Richard Campbell provided a stimulating and supportive leadership climate for the program and a wealth of professional knowledge and insight. Karen Lyness was a stimulating and helpful colleague who served as both friend and professional sounding board.

Among the many professionals making valuable adjunct contributions to the program, Ted Ballard demonstrated an uncanny ability to read and understand people through the use of projective instruments; and Jodi Kassover-Taylor and Richard Elmore shared their wisdom and professional talent generously.

Special thanks go to Mike Lombardo whose insights and ideas permeate all aspects of this work. His creative mind helped us think in terms of the linkages between the findings on stress and coping and our own studies of learning how to learn.

Introduction

For over a decade, researchers at the Center and elsewhere have been studying the role of learning from experience in executive development (see, for instance, Eichinger & Lombardo, 1990; Kotter, 1988; Lindsey, Homes, & McCall, 1987; Lombardo & Eichinger, 1989a; McCall, Lombardo, & Morrison, 1988; Morrison, White, & Van Velsor, 1992; and Van Velsor & Hughes, 1990). This work has shown in great detail what lessons an executive needs to learn if he or she is to be successful and what types of experiences can teach these lessons. At the same time, however, it has raised a vexing question: Why do some people who have the benefit of key experiences learn while others with the same experiences do not? As Lombardo and Eichinger (1989a) point out,

> Managers we studied who went on to become effective executives not only had the experiences but learned lessons from them. Learning was not automatic.

We found that we had learned a lot about the content of learning from experience but little about the process. This became our next challenge (Bunker, 1989).

In order to begin looking at the learning process, we recently carried out an exploratory project aimed at developing an understanding of how executives learn. As part of our preparation for this project, we often asked successful executives to list adjectives describing how they felt while working through powerful learning events and potent developmental experiences. Their responses were typically a combination of positive and negative words similar to the following:

Negatives—pained, fearful, frustrated, stressed, anxious, overwhelmed, uncertain, angry, hurt.

Positives—challenged, successful, proud, capable, growing, exhilarated, talented, resourceful, learning.

The consistent pattern that we found in these self-reported feelings strongly support the long-hypothesized notion of a meaningful link between stress and learning (Janis, 1971). The learning events and developmental experiences that punctuate one's life are usually, perhaps always, stressful (Grey & Gordon, 1978; Hambrick, 1981; Jennings, 1971; Schein, 1978).

Thus, we became convinced that an important part of the process of learning from experience is how, and how well, the executive copes with stress. This belief was reinforced by information gained from a stress research project that the first author conducted prior to coming to the Center and from a review of the stress literature.

In designing the exploratory project, we developed some hypotheses about the relationship of coping with stress to learning from experience, and, given these hypotheses, we also developed some ideas about how learning from experience can be facilitated by taking stress and coping into account. We would like to detail these hypotheses and practical ideas here. (A report that summarizes what the learning project revealed about the overall process of learning to learn is now in preparation.)

We begin with a summary of what we hypothesize to be the relationship between stress and learning in a managerial context, followed by a brief review of what stress research has contributed to our understanding of this relationship. Next, we will report on a study of managerial stress and coping conducted in a corporate setting and we will present a model of coping and adjustment that came out of this study. We will then suggest a working model, derived from the one developed in the study, which describes how typical coping behaviors may be related to the success and failure of managers striving to learn from their experience. And, finally, we will offer some recommendations, given the current state of our knowledge, about how stress can be used to enhance learning—in short, how it can be made a tool for improving executive growth and performance.

Coping with Stress and Learning from Experience

The relationship between coping with stress and learning from experience is subtle and complex. In our view, people who respond effectively to stress have much in common with effective learners. In fact, effective coping generally involves the process of actively learning and growing in response to stressful situations.

The following is a general description of what we hypothesize is taking place as executives attempt to learn from their experiences.

We should begin by pointing out that it is not uncommon for executives to try to find ways to be successful without experiencing stress. They are, in fact, most comfortable when they can draw upon a proven repertoire of operating skills to tackle a known challenge they have conquered in the past. In most settings, this basic orientation toward the known and comfortable is reinforced by an organizational preference for having proven performers in important positions. The result is a tremendous initial pressure to keep people doing what they already know how to do. For many executives, then, learning becomes a default activity that is undertaken primarily when challenges or crises demand it.

Even when executives take the initiative and submit themselves to the stress of learning, either willingly or because they have no choice, insidious blocks can inhibit the learning process. Sometimes these blocks have evolved from coping tendencies and performance patterns that provided success and rewards in the past. These blocks are particularly imposing because a person's reaction to the stress associated with the situation sets the tone for the learning efforts (or lack of them) that follow. Often the nature and potency of subsequent learning strategies can be predicted or understood by examining the preferred patterns of coping demonstrated in similar situations in the past.

One of the stronger inhibitors of successful coping is the fear that one's methods of responding will be ineffective. Not surprisingly, this fear is reinforced by a manager's natural tendency to stay within the familiar framework of what has already been tried successfully and rewarded. What results is one of the great catch-22s of adult development: The times when people most need to break out of the mold cre-

ated by past learning patterns are the times when they are most unwilling to do so.

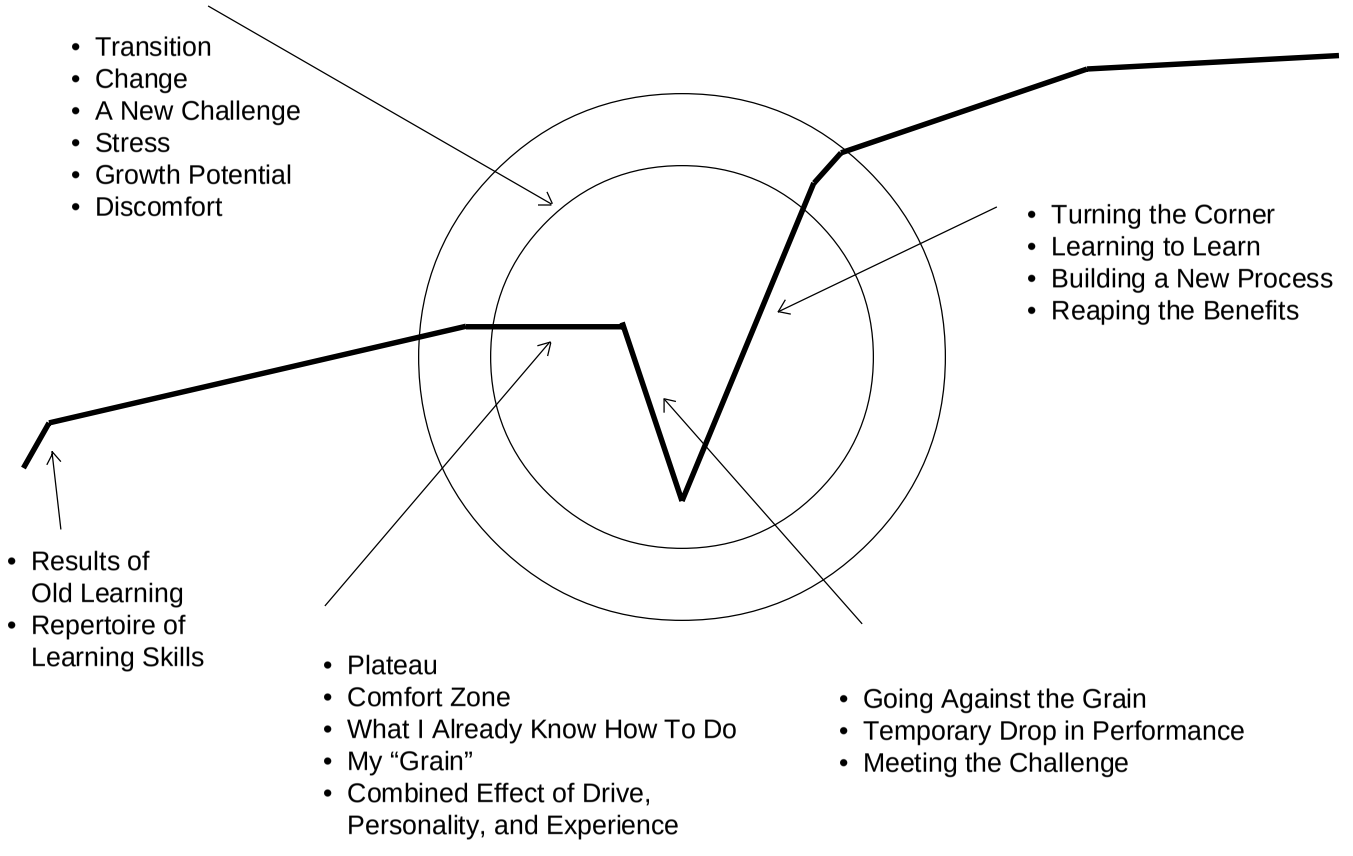
We call the process of overcoming the inertia associated with previously successful, and often rewarded, behavior *going against the grain.* Going against the grain is an uncomfortable activity. Challenging one's preferred coping and problem-solving style requires an unwavering commitment to learning and a relentless willingness to let go of the fear of failure and the unknown.

Figure 1 depicts our current understanding of what is involved in going against the grain. A segment of life is shown as containing a series of learning opportunities. The circled segment represents a stressful episode of life—a potentially dramatic learning-to-learn event. The left side of the curve represents the growth and development that was stimulated by prior learning experiences. Also represented is a flattening out of learned skill value that often occurs as situations change and new demand events are encountered. People operating in this stabilizing period that we call the comfort zone must overcome the caution generated by ongoing success and the fear of challenging what they already know how to do. The smaller concentric circle represents the tension created by the appearance of a new learning challenge—often arising out of a transition or a stressful experience that requires a response. The sharp dip in success depicts the performance regression that generally accompanies attempts at learning a new set of responses and strategies. One gets through this period (and thus performs at a higher level with broader skills) by coping with the stress or letting go of short-term expectations in favor of more long-term learning.

To obtain the maximum learning benefit and, ultimately, to improve performance, leaders must be strong and secure enough to make themselves vulnerable to the stresses and setbacks in the learning process. We like to call this phase of learning *growth through developmental surrender.* It consists of letting go of proven strengths long enough to acquire new ones. Experience in our exploratory study suggests that most managers require considerable support in initiating this developmental process. They need ongoing feedback and support from both mentors and peers; that feedback needs to be around issues of

Figure 1

ANATOMY OF A LEARNING EXPERIENCE



process, strategies, and tactics rather than around solutions, outcomes, or symptoms of stress. A simple example may help to clarify this thesis.

The first author has an athletic fifteen-year-old daughter who began playing tennis at the age of six. Because she was very young and the racket was heavy, she held it with two hands when hitting both her forehand and her backhand. After a year or so she became stronger and dropped one hand from the forehand side, but she continued to hit two-handed backhands. Now she is a rapidly growing teenager who is tall, strong, and quick for her age. She has hit her backhand quite well over the years and has had a fair degree of success using her two-handed swing.

This once-successful stroke, however, is now blocking her advancement to the next level of performance: The two-hander is one-dimensional and predictable, and it imposes limits on both her range and her mobility. It also restricts her ability to vary the pace and spin on shots from that side of the court. Since she is now clearly strong enough to switch to a more flexible one-handed shot, her coach (Dad) has been encouraging her to make the change and has been helping her with the transition. In her view the most immediate outcome of this effort has been a decline in performance compared to the old comfortable way. It provides little consolation to tell her that she will have to suffer through a period of performance regression before the new learning takes hold and she moves up to a higher performance plane.

Fortunately, she is a willing pupil and cooperates in trying out the new approach in practice. There is much frustration associated with the effort, but there is encouragement when she hits the new shot correctly and is able to catch a glimpse of the potential long-term payoff.

But what happens in the short term when she is faced with the stress of competition or the pressure to hit a big shot in the clutch? In those situations, she almost invariably falls back on the old stroke—the one that feels comfortable and is associated with prior success (and indeed, the one that is still superior in the short term).

Lombardo and Eichinger (1989a) discuss this phenomenon as it plays out in the evolution of managerial strengths and weaknesses across the life span of a career. For example, they show how a strength, such as the self-sufficiency and can-do perfectionism that yield success

and rewards in early career stages, can become a weakness, a liability, or even a potential derailment factor in higher-level assignments where delegation and working through others are critical.

Our thesis, then, is that executives must be prepared to let go of preferred (and often perfected) skills and strategies long enough to develop and cultivate new ones, and they must do so in the heat of problem solving. Thus, to facilitate learning, one must provide not only skill training and experiential opportunities but also support and assistance in coping with the discomfort that can inhibit entry into a new and potentially stressful learning cycle.

A Look at Stress Research

Psychologists have long studied and speculated on the role of stress in learning and have been developing theoretical and conceptual models of the relationship. This paper will not present a comprehensive or integrative review of the stress literature (see, however, Appendix A). What we're interested in here is a series of questions that addresses how stress and learning relate in a managerial context: What actually happens when successful managers are on the cusp of encountering new and challenging developmental opportunities? How do past experiences influence feelings of stress and thereby behavior in the new learning situation? What is the impact of personality, drive, and prior learning history? How do level of perceived stress and coping preference combine to shape actions taken or avoided? What determines the degree of stress experienced and the coping patterns that follow, and how do these factors affect the likelihood that the desired learning will occur?

At the individual level, what determines whether a manager will shrink from a new challenge or plunge into the fray? What questions are raised about the problem and the problem-solver, and what impact does this questioning process have on the solutions attempted and the outcomes obtained? Is there information we could gather that would help us predict for a given manager which types of challenges are most likely to be actively addressed and which avoided? If we had the above information, could we intervene in ways that would enhance the probability that both the manager and the organization would achieve desired developmental outcomes?

As a part of our exploratory project, we examined the literature relevant to the role of stress as a facilitator and inhibitor of learning, looking particularly at the body of theory and research that has emerged from the study of work and nonwork stress. (Appendix A contains a brief synopsis of this research.)

What does the literature on stress and coping tell us? What conclusions can we draw from these historical investigations and theoretical models that may have implications for understanding how managers learn and develop?

In our view, the following themes emerge:

Stress and coping is transactional and transitory. Stress is not a what or a thing, or even an event. It is a transactional process between managers and their environment. The process is channeled by individual differences in drive and personality, shaped by life events and experiences, altered by the developmental passage of time, and continually updated and modified by feedback about coping. Measuring stress and coping can be quite a challenge (Latack, 1986). It is a lot like trying to photograph a moving target that exceeds both the angle of view and the stop-action capability of the camera. To make matters worse, much of the significant activity goes on "between the ears" and thus is not readily observable. Efforts to remove complexity from the phenomenon for the sake of ease of measurement can result in oversimplification and the collection of measurable data of trivial consequence.

The stresses and strains of work and nonwork life are interactive. The literature of stress research is filled with studies of isolated variables measured and evaluated as though they operated independently in a vacuum. In the real world, the stresses and strains of daily living intertwine and interact with one another on a regular basis. To truly understand how people perceive stress and attempt to cope, it is necessary to observe their efforts in the context of their total lives.

Past experiences matter—a great deal. It is clear from the research of Vaillant (1977), as well as from our own investigations (Bunker, 1985), that early developmental experiences interact with personality and drive to shape both perceptions of stress and preferences among coping activities. That is not to say that people are all deterministic prisoners of their childhood learnings. The effects are more often subtle in that most people are repeatedly confronted with significant barriers relative to particular problem situations and potential learning events. These historical barriers help to define and reinforce the personal boundaries that need to be confronted, stretched, and challenged if a person is to move on to new heights of learning and success in situations that fall outside of his or her perceived comfort zones.

Stress is an individual and personal phenomenon. Events described as negative stress by one person are often characterized as the

"spice of life" by another. Perceptions of stress are influenced by personality, past experience, psychological and physical make-up, abilities, skills, motivations, age, needs, support environment, etc. To study stress and coping in a meaningful way (or to design impactful intervention programs) one must utilize an intensive, individualized methodology that incorporates a broad spectrum of factors and associated information.

Objective reality and subjective perceptions both play key roles in stress and coping. Throughout the history of stress research, conflict has raged over whether it is more important to consider the objectively rated stress of a given situation (that is to say, the amount of stress that the average person would likely feel) or the subjective perception reported by the person actually experiencing the situation. If the person says "I am not stressed by that" or fails to mention the event at all, should that be taken as evidence that no stress is present? The answer falls somewhere in the middle. It is not unusual for some people to be unfazed by events that others would describe as extremely stressful. Perhaps they have survived other more serious problems in the past and have modified their perceptions of what really constitutes a stressor or even a challenge. For example, a person who has learned to cope with the unanticipated early death of a spouse may view a reorganization at work as a rather benign event, whereas others might see it as one of life's great traumas.

On the other hand, it is not unusual to find people who report no stress but who are actually blinded by their use of an unhealthy level of denial or suppression. It is one thing to say that you are nonplussed and quite another to truly feel that way. The line between the healthy and unhealthy usage of unconscious defense mechanisms is a fine and complex one, but suffice it to say that one cannot accept without question what appears on the surface. Meaningful research requires multiple measures from multiple perspectives.

Avoidance is a key concept. We have found it easier to clarify a manager's dominant coping and learning preferences by looking not at what is sought after and done well, but at what is shunned and avoided. Most people are adaptive and effective within a preferred domain of

activities that is consistent with their drive, their personality, and past experience.

What tends to define and differentiate people as individuals (and as effective or ineffective copers) are those situations which threaten one's self-image and exceed one's perceived ability to respond (Pearlin & Schooler, 1978). These are the demands, challenges, and opportunities that tend to be dodged, denied, ignored, or otherwise avoided; thus they are the factors which are most helpful in understanding coping and learning patterns. Increased awareness of the things one prefers to avoid can help a person understand and work with his or her coping tendencies, strengths, vulnerabilities, blocks and barriers, and limitations.

Summary. The theme binding these six characteristics together is the individual complexity and challenge associated with both coping and learning. There are no universal models or strategies for being a more effective coper. Likewise, there are no infallible techniques for maximizing experiential learning. What we do know is that meaningful research and interventions in the stress and coping arena must take into account the complex interaction of many variables which are affected by both individual differences and time. Furthermore, one needs to be aware that many of the important moderating variables are operating internally and are thus not readily observable on the surface (Beehr & Newman, 1978; McGrath, 1976). The stress research project described in the next section was designed to accommodate some of this complexity through the use of an intensive individualized research methodology.

The Stress Research Project

The Managerial Stress Research Project was a study conducted by the first author within a major utility organization. In this study, we elected to investigate a small number of managers in great depth rather than repeat the pervasive type of research in this field, i.e., large sample surveys of one or two isolated stress variables. We were interested in studying "whole people" in the context of coping with stress in all aspects of their environment. In the end, it matters little how we, as researchers, might define stress or its impact. What matters most is how people define it for themselves and how it plays out in their work and nonwork lives. To study stress in a meaningful way one must be willing to accept the definitions that people utilize to characterize their own lives and their own powerful experiences.

We collected data using multiple methods, multiple perspectives, and multiple measures; and we focused on a holistic view of the person rather than on isolated aspects of work or nonwork stress (Bunker, 1985; 1988). This type of research design has been recommended by a variety of theorists (Bhaghat, 1983; Campbell & Fiske, 1959; Moos, 1974; Murray, 1938; Parkes, 1982; Vaillant, 1977). In general, we tried to answer the question, "How do managers adjust to and cope with the demands of living their total lives—not just the demands of their jobs and careers, but also their lives away from work?"

The Samples

Over the years we collected stress and coping data from approximately 200 men and 46 women. Our participants were early to mid-career managers 28 to 45 years old. We selected them at random from various segments and subdivisions of the organization. These samples should not be viewed as representative of all managers, or even all managers within this particular organization. We were more interested in model building and in developing an in-depth understanding of a small group of people.

Because we were operating within an organization with a specific set of cultural characteristics, we stake no claim as to our ability to

generalize to the population at large. Our interest was neither in striving for sampling purity nor in trying to identify the ideal subject pool. Rather, we were interested in developing useful tools for the study of potent stress situations. We wanted to conduct an on-line examination of the stress and coping process as it operates in real life.

We should also point out that these managers were not selected because they had a specific or unusual level of stress or because they were thought to be particularly effective or ineffective as copers.

For purposes of this paper, we have focused on findings from the last two sample groups studied in the project: a group of 49 males and a comparable group of 46 females. Although male and female differences are present in some aspects of the stress and coping data, a discussion of these divergent data patterns is beyond the scope of this paper. Our aim here is to concentrate primarily on common outcomes and recurring themes.

Research Design

Both objective and subjective measures were utilized in this project. We heeded the advice of Henry Murray (1938) and relied heavily on self-report measures such as questionnaires, interviews, and personality tests. But we attempted to overlay objectivity and triangulation on the process by pursuing the information in many different formats and from many different angles. Further, we took one step back from the direct acceptance of self-report data by asking a team of professionals to interpret the raw data and to make expert ratings of the integrated information. Thus, for example, it was possible for a manager to verbally report having low stress in an area of life where subsequent evaluation and interpretation of the data might result in a high rating being assigned by the staff.

Stress *is* in the eye of the beholder. But sometimes the beholder's vision is blurred by the distorting effects of unconscious defense mechanisms or the protective shield of conscious coping strategies. We succeeded in peeling away some of these layers of complexity by using expert assessment and multiple rating techniques.

Past experience with assessment-center technology suggested that this methodology might be ideally suited for integrating complex individual variables such as personality, ability, motivation, needs, symptoms, and coping preferences (Bray, Campbell, & Grant, 1974; Bunker, 1985; MacKinnon, 1975).

Every effort was made to win the trust and confidence of the participating managers. The use of an off-site facility helped to create a relaxed and supportive atmosphere where managers would feel more comfortable removing their carefully crafted managerial masks to examine vulnerabilities in their approach to the demands on their lives. The mere use of the term *stress* seemed to elicit openness and engender trust, and they shared information often kept secret—not only from others but from themselves as well.

An initial one-day session was used to build a cooperative relationship and to administer objective and projective tests of personality. Distributed across the following week were in-depth personal interviews conducted by members of the psychological team. One week after the initial session the entire group was reassembled for an intensive day of primary data collection, during which we assessed self-perceived stress levels, psychological and physical symptoms of distress, coping and defense mechanisms, and work and nonwork problems. Figures 2 and 3 contain a flow diagram of the research and development process.

Input data were collected in the eight categories given in Figure 4 (p. 16). Objective tests in each category were then scored and analyzed, and a narrative summary report was written to capture the significant data patterns in each. The eight categories of data were then pulled together or "integrated" in case staffings which operated like assessment-center evaluation sessions.

A trained staff of psychologists then met for two to three hours to evaluate the stress and coping characteristics of each manager. Each assessment team was composed of either four or five staff members, all of whom had considerable experience as assessors or staff psychologists for the organization's operational assessment centers. All of the clinical psychologists had experience interpreting projective and personality tests as part of their involvement in both programs. Each staff team

Figure 2

MANAGERIAL LIFE STRESS PROJECT
Assessment Phase

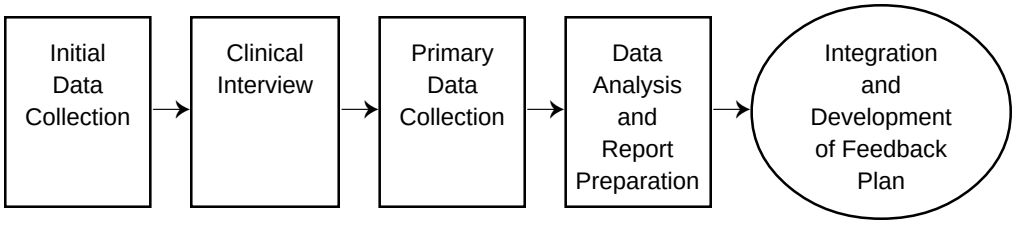


Figure 3

MANAGERIAL LIFE STRESS PROJECT
Feedback and Development Phase

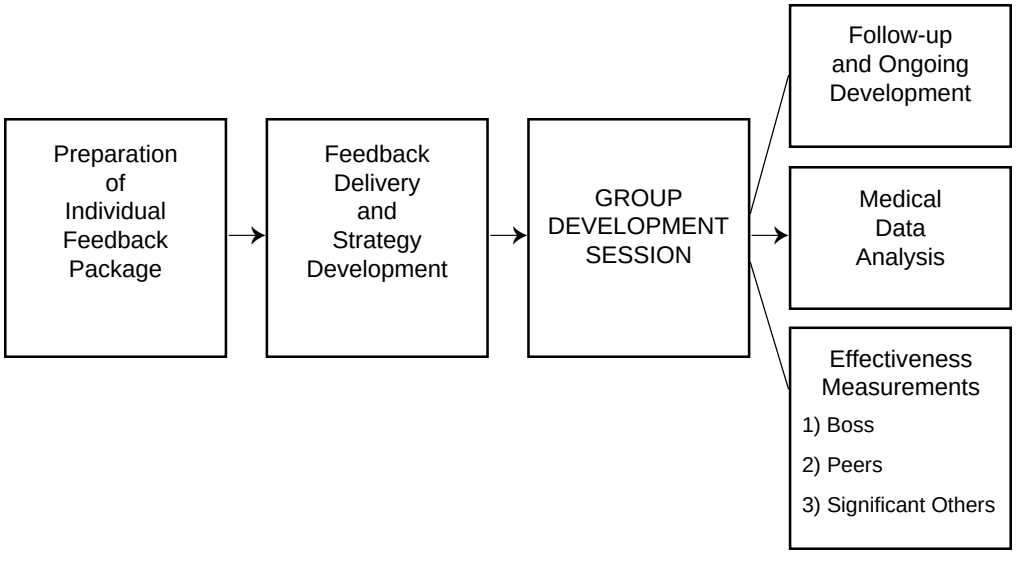
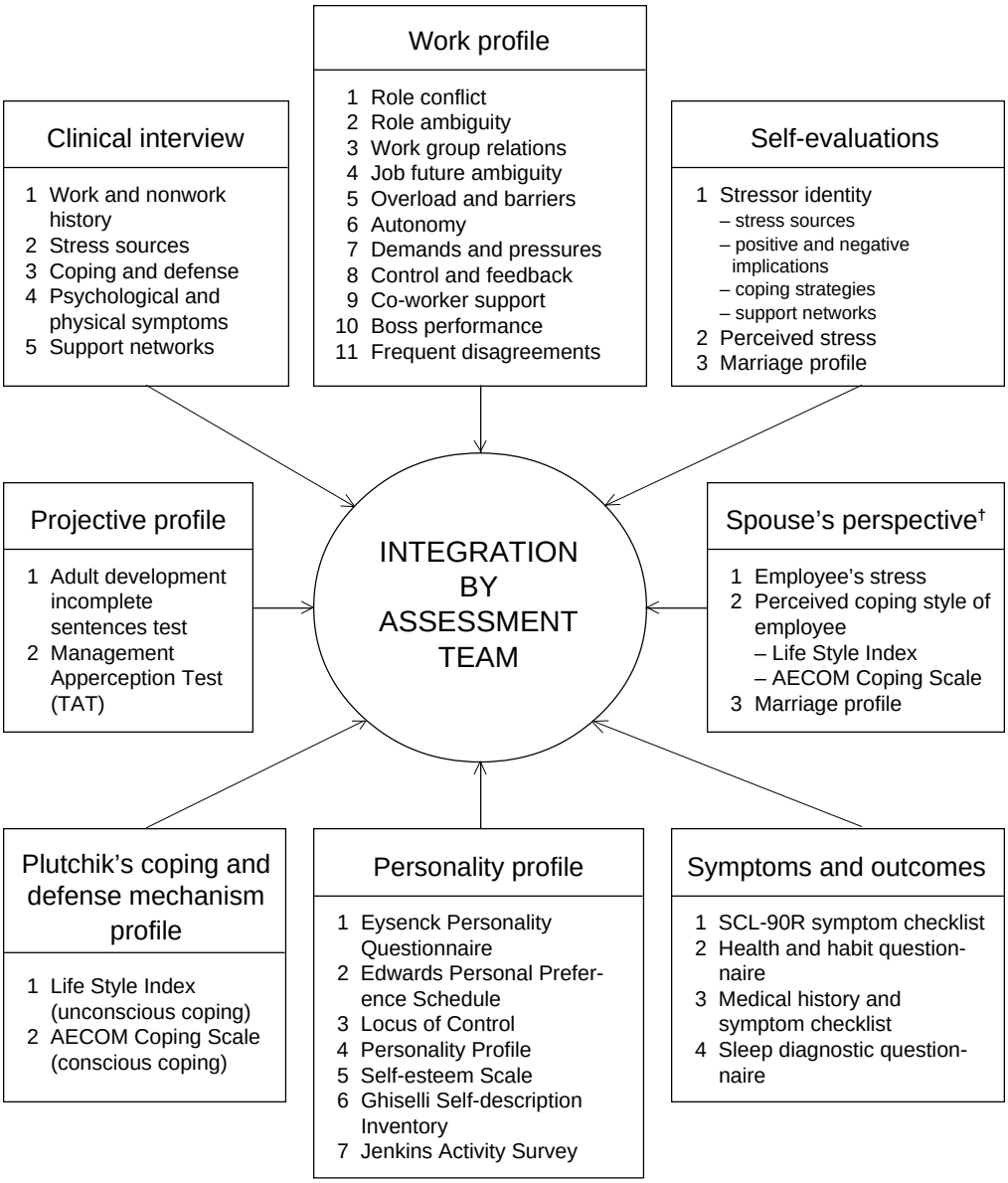


Figure 4

INPUT DATA FOR THE STRESS ASSESSMENT PROCESS



† NOTE: Spouse data was not gathered from the women in the study since more than half of our female sample was unmarried and the company was unwilling to let us solicit data from "significant others."

contained a mix of the following people, with at least one person drawn from each of the three groups:

Group 1: Six clinical psychologists with Ph.D.s, each having a minimum of five years of assessment-center experience.

Group 2: Five industrial/organizational psychologists with Ph.D.s, each with a minimum of six years of assessment-center experience.

Group 3: Four Ph.D. candidates in psychology who were interning with the organization, each with an average of three years of assessment-center experience.

Each team began analysis of a case by reviewing the eight independently prepared narrative summaries and the normed testing reports from which those summaries were prepared. Each staff member then completed independent ratings on a large number of assessment dimensions that had evolved from previous phases of the research. These dimensions were categorized into various components of the stress-coping-health cycle such as positive and negative stressors; motivations; skills; abilities; needs; coping styles; psychological adjustment; life status; psychological symptoms of distress; and overall physical health. (Appendix B contains a categorized listing and brief definitions of the dimensions used in the integration process.) The final rating for each person on each dimension evolved out of a staged process of: (1) a reading of all of the narrative summaries; (2) an opening of the floor for questions and clarification on all information; (3) the generation of independent ratings of each dimension by each staff member (ratings made on a scale of 1 to 5, with 1 indicating “not very characteristic of this person” and 5 indicating “very characteristic of this person”); (4) a reconciliation of any two staff ratings differing by more than 1 point; and (5) the computation of the arithmetic average of the final staff ratings for each dimension.

Overall Ratings

The multimeasure, multiperspective case-history data provided a rich and individualized view of these managers. Each person's file of summary reports is roughly two inches thick with another two inches of supporting data in raw form. Reading a file is much like reviewing the personal and career history of the person and his immediate and extended family. Distilling this information to the form of sterile dimensional ratings involved a painful paring of data for a staff that had come to know these managers personally. Even more painful was taking the next step of collapsing the dimension ratings into global indices of Overall Life Stress and Overall Adjustment—a process we deemed essential if we were to draw any conclusions about the nature of effective and ineffective coping patterns.

To achieve the Overall Life Stress rating, each staff member reflected on the individual positive and negative stressor ratings made for the work and nonwork dimensions. We then made individual ratings for Overall Work Stress and Overall Nonwork Stress. As a staff we then discussed and reconciled differences on these ratings in the standard fashion described earlier. An Overall Life Stress rating was then computed by simply averaging the final overall ratings from work and nonwork. Thus, it is possible for a person to have a relatively high Overall Life Stress score owing primarily to work factors, to nonwork factors, or to some combination of the two.

The Overall Adjustment dimension was the final evaluation made during the integration process. The staff was asked the following question: "Considering all aspects of this person (ability, motivation, coping preferences, psychological and physical health and well-being, support systems, etc.), how effectively is he or she adjusting and adapting to the stressors present in his or her life?" In making this rating we focused on long-term effectiveness and probable impact on work and nonwork life. As with all of the dimension ratings in this process, we emphasized making professional judgments that were tailored to the life experiences of the person in question. In other words, we evaluated objective data using consensus interpretations of clinical opinion. In this way we were able to overcome some of the inherent flaws associated with trying to

apply absolute scales and standards of either stress or adjustment. Both dimensions are influenced by individual differences and the moderating effects of personality and coping.

It was not unusual to see high adjustment ratings for managers who were experiencing extremely high levels of total life stress but who had demonstrated a wealth of compensating coping ability in mastering prior life challenges. Similarly we saw low adjustment ratings among managers whose stress levels seemed rather minor by comparison. In short, our ratings are person-centered and individually indexed around clinical evaluations of each person's potential for coping and adjustment.

A Quadrant Model of Stress and Adjustment

The basic question underlying much of stress and coping research revolves around the identification of differences between those who handle high stress effectively and those who do not. We addressed this question in our study by examining the characteristics of our managers in a two-by-two matrix. The matrix was created by performing median splits on the two Overall Dimensions described in the previous section. We thus identified managers who were High or Low on Overall Life Stress and Overall Adjustment. The resulting quadrant groups can be characterized as follows:

I. Lo/Lo: low stress, low adjustment

II. Hi/Lo: high stress, low adjustment

III. Hi/Hi: high stress, high adjustment

IV. Lo/Hi: low stress, high adjustment

The two-by-two matrix resulting from this process forms the basis for our model. Each manager was assigned to one of the four quadrant groups. It is important to emphasize, however, that such characterizations can sometimes be misleading. Most people operate in one

quadrant in some areas of life and a second or third quadrant in others. For example, it was not unusual to find women who were Hi/Hi in their career efforts and Hi/Lo outside of work. Nevertheless, the people assigned to each quadrant have strong overall tendencies toward the characteristics of that group, and an examination of group characteristics offers considerable insight as to the nature of effective and ineffective coping.

Measures

The managers completed a wide range of research instruments including, but not limited, to the following:

The Stressor Identification Exercise: an internally developed, open-ended instrument that examines negative and positive stressors in three areas of life: job and career, home and family, and personal.

Work Profile Questionnaire: an 89-item questionnaire containing work-related stressor scales derived from the work of Caplan, Cobb, French, Harrison, and Pinneau (1975) and Kahn, Wolfe, Quinn, Snoek, and Rosenthal (1964): ambiguity, role conflict, job-future ambiguity, work-group relations, and a number of others.

Life Experiences Survey (LES): a 57-item self-weighting survey of life events developed by Johnson and Sarason (1979). In addition to standard items, participants are allowed to list and weight self-generated items.

Eysenck Personality Questionnaire (EPQ): a 90-item instrument that measures core personality along three major dimensions: (1) Extraversion, (2) Emotionality, and (3) Tough-mindedness (Eysenck, 1975).

Reid-Ware Internal-External Locus of Control Scale: a 45-item forced-choice questionnaire that assesses perceived locus of control over three factors: (1) Self-control (control over one's feelings, emotions, and actions), (2) Social Systems Control, and (3) Fatalism (role of personal control versus fate and luck; Reid & Ware, 1973).

Hopkins Symptom Checklist, Revised (SCL-90R): a 90-item self-report inventory of psychological and physical well-being. This instrument is frequently employed as an index of point-in-time stress symptoms (Derogatis, Lipman, Rickels, Uhlenhuth, & Covi, 1974).

Life Style Index (LSI): a self-report test designed to measure eight types of unconscious defense mechanisms (Plutchik, Kellerman, & Conte, 1979). Each ego defense is linked to an associated conscious coping style in the AECOM Coping Scale described below.

AECOM Coping Scale: an instrument, like the LSI, developed by Plutchik et al. (1979) at the Albert Einstein College of Medicine. The scale consists of 95 multiple-choice items designed to assess the subject's preference for eight different conscious coping tendencies.

Self-esteem Scale (SES): a 32-item, self-report scale developed by Plutchik and based on the Tennessee Self-concept Scale (Fitts, 1965).

Personality Profile: an 89-item personality assessment instrument by Conte and Plutchik (1981) based on the circumplex model first proposed by Cattell (1946). The eight scales are linked conceptually to those on the LSI and the AECOM Coping Scale.

Characteristics of the Stress/Coping Quadrant Groups

This section contains descriptions of the stress and coping characteristics of the four quadrant groups. Although we have not included statistical data here, dimension ratings or test scales that are discussed reflect the instruments, dimensions, and items that contributed to a statistical differentiation (typically discriminate function analyses) between the group in question and one or both of the other two. (One group, Lo/Lo, because it had so few members, was excluded from analysis.) Exception: Where the information is useful, we have pointed out scales on which the groups proved to be essentially equal. (We have included a few graphic presentations of mean group differences on the assessment dimensions in Appendices C and D. Appendix C contains profiles from the women's sample and Appendix D displays similar charts for the men.)

Low Stress, Low Adjustment (The Whiner). The Lo/Lo group is unusual for management populations. Only 3% to 4% of our research samples were in it. The typical profile of managers in this group contained few examples of major ongoing life stress. In general, life was treating these folks well, although it was hard to see this in conversa-

tions with them. They characteristically complained endlessly about problems that seemed mundane and trivial compared to what others were experiencing.

Scores on the symptom checklists tend to confirm that these managers were indeed feeling poorly both psychologically and physically. What sets them apart from the Hi/Lo group described in the next section is the fact that they were rated as experiencing low levels of stress.

Drawing from the television show "Saturday Night Live," we labeled this group of managers *The Whiners*. Things were going pretty well for them but they felt badly anyway. They had a chronic tendency to seek out the dark cloud that was sometimes hidden behind the rainbow. We will devote little space to further discussions of this group because of its tiny representation in the management population and because its members were incredibly resistant to change.

High Stress, Low Adjustment (The Avoider).

Job and Career Stress. This group was dominated by feelings of high negative stress on all of the work-related dimensions (see Appendix B for definitions of the work and nonwork stress dimensions). It should come as no surprise that the Hi/Lo managers reported high levels of negative stress since Overall Life Stress was one of the defining characteristics of the coping matrix.

What makes members of this group stand out from the more highly adjusted managers in the Hi/Hi and Lo/Hi groups is their relative inability to tap into the positive aspects of stressful environments. They simply viewed most new and different situations as threats and demands rather than as challenges and opportunities. Consequently we frequently found them experiencing only the negatives of a potential learning event. Their personal interviews were teeming with discussions of things that weren't going well, and they often had to be prodded to even speculate about the positives that might lie hidden beneath the surface.

Figure 5 (p. 24) presents this finding in graphic form. It shows average Discrepancy Scores for three groups on each of the work-stress dimensions.[1] It is apparent here that Hi/Lo managers experienced negative trade-offs on all of the work-stress dimensions. They differ signifi-

cantly from those in the Lo/Hi group, who had positive trade-offs on all dimensions. But the most interesting comparison is with their high-stress compatriots in the Hi/Hi group. Despite the high levels of negative stress reported by the members of that group, they still achieved a positive balance on two of the four dimensions, with a near zero trade-off on the other two. Thus, it appears that one of the failings of Hi/Lo managers was their inability to capitalize on the compensating benefits of positive stress. This finding is reinforced by other dimension ratings presented below.

Nonwork Stressors (Personal and Familial). Hi/Lo managers experienced stress in their personal lives in a fashion similar to stress at work. They received higher ratings of negative stress from Marriage (if married), Single Life (if unmarried), Family Issues, Personal Concerns, Financial Matters, and the Impact of Nonwork on Work. As in the work setting, they received lower ratings of positive stress although the differences are not always as great and in many cases are not statistically significant.

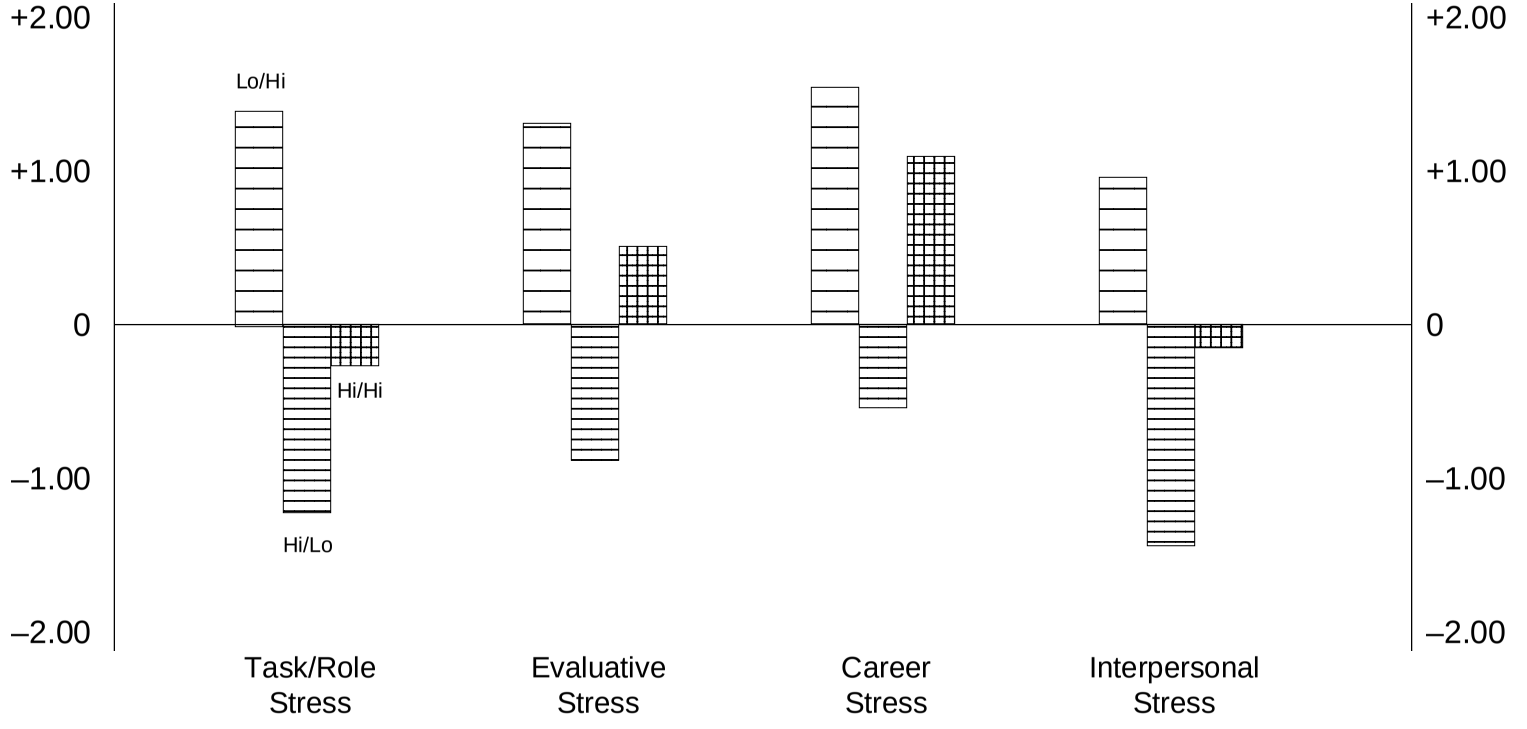
Figure 6 (p. 25) contains Discrepancy profiles for the nonwork stress dimensions. The relative balance is less negative than in the work arena (with the exception of Personal Stress and the Impact of Nonwork on Work). However, the Personal dimension is an important one with linkages to others such as Self-esteem, Optimism, and Action-proneness.

Life Events. The typical Hi/Lo manager reported a high number of life events on the LES scale, a survey of events experienced during the previous six months in which events are weighted by their perceived impact. This may indicate that they made more changes or perhaps experienced more demanding situations during this period than the Lo/Hi managers. More importantly, it can be seen in Figure 6 that the Hi/Lo managers tended to rate the events significantly more negatively than those in the Lo/Hi group.

Interestingly, managers in the Hi/Hi group reported an even higher number of experienced events, but they tended to evaluate them somewhere between neutral and positive. Scores on this scale represent another indication of the rather negativistic attitude of the Hi/Lo managers.

Figure 5

WORK-RELATED STRESSOR DISCREPANCY SCORES* FOR THREE MANAGERIAL GROUPS (rated on Stress/Adjustment dimensions)



*Discrepancy = Positive Stress Rating minus Negative Stress Rating

Figure 6

NONWORK STRESSOR DISCREPANCY SCORES* FOR THREE MANAGERIAL GROUPS (rated on Stress/Adjustment dimensions)

*Discrepancy = Positive Stress Rating minus Negative Stress Rating

Personality Factors. Some of the key defining dimensions for this group are in personality dimensions. The average scores on Eysenck's Emotionality and Tough-minded Scales tend to be quite high, indicating that the typical Hi/Lo was frequently a worrier and a loner, a person who was quickly aroused when confronted with stress and slow to return to a stable level once the arousal had occurred. Those with high scores on both of these dimensions were prone to moodiness, anxiety, and in extreme cases even depression. Nevertheless, they frequently attempted to "tough it out alone," owing to a fear that others would neither understand nor offer help.

Other significant personality characteristics include low levels of Self-confidence and Self-esteem, and feelings of Powerlessness on major issues that have impact on one's life (High External Locus of Control). This is accompanied by high levels of Abasement, suggesting feelings of inferiority relative to others.

Unconscious Defense Mechanisms. A strong characteristic of the Hi/Lo manager was the tendency to do a lot of unconscious screening of incoming stress information. It was not so much the overuse of any one type of defense mechanism as it was a global elevation of all defenses. The major impact was that much of the response process was kept out of the domain of conscious coping. These managers expressed "feeling bad" but they had trouble identifying the source of their discontent and even more difficulty confronting the problems once identified. This lack of self-insight can greatly inhibit the learning and coping potential of the situation. The manager has in effect blocked out the source of the stressor by retreating to immature behavior patterns such as exaggerating opposite attitudes, blaming others, or becoming extremely dependent or hostile.

Active Coping Factors. As might be anticipated from the comments above, managers in this group did not invest a great deal of energy in active coping efforts. They are rated high on Dependency and extremely low on Action-proneness. They looked to others to solve their problems. Their learning histories often contained little evidence of mastery in similar situations, and frequently there was evidence that they avoided the major issues in their lives. Their tolerance of ambiguity

and uncertainty tended to be low, and they were relatively inflexible in tackling problems that differed from those they handled in the past.

It would have been tough to improve the coping efforts of managers who chronically operated in this quadrant because they were low in self-objectivity and awareness and high in distortion, defensiveness, and hostility. They often rejected or refused to hear those who challenge the comfort of their unconscious defenses.

Psychological Health Status. Hi/Lo managers were generally experiencing a fair amount of discomfort. In our samples they displayed elevated scores on virtually all scales of the SCL-90R (particularly Anxiety, Depression, Hostility, Interpersonal Sensitivity, and Somatic Complaints). They were often quite depressed with feelings of low motivation and loss of energy. Their problems felt unsolvable and they sought out symptom relief from other people and from programs. The true source of their discomfort often got least attention as they looked for someone else to blame or for similarly depressed listeners who would sympathize with them and confirm their feelings of hopelessness and frustration.

Overall Status. Managers who operated primarily in this stress/coping quadrant were not happy people. They frequently reported a great deal of stress from many areas of life, with most stressors being of the negative variety. They viewed their major problems and stressors as overwhelming and under the control of others. Current coping was generally ineffective and the long-term outlook was pessimistic. As a result, they tended to avoid stressful situations, rather than to learn from them. Thus we labeled the Hi/Lo group *The Avoiders*.

Summary. Avoiders gave the appearance of being overwhelmed by stress. They reported high negative stress and failed to see the positive stressor implications that often lay hidden just beneath the surface. They observed complexity but were relatively inflexible in confronting it. Their tendency was to ignore or deny the new information while working harder at strategies from the past that were often inappropriate in the present. Not surprisingly, their coping efforts frequently resulted in failures that only served to heighten their sense of frustration and pessimism.

In many ways Avoiders become their own worst enemy because they were hampered by low self-esteem and low self-efficacy, and a relative lack of optimism. External pressures and rewards dominated over inner needs and standards, leading to feelings of powerlessness and dependency. Active coping skills suffered as The Avoider screened out information with unconscious defense mechanisms. The resulting pattern was one of seeking ways to deny and avoid problems rather than meeting them head-on.

In the end, avoiding generally led to feelings of unhappiness and dissatisfaction. The Avoider was keenly aware that things were not going well but may not have been able to point a finger at the precise problems. There was a tendency to get stuck reflecting on concerns and feelings without addressing the stresses that caused them to begin with.

High Stress, High Adjustment (The Attacker).

Job and Career Stress. The true Hi/Hi manager was often a workaholic who derived most pleasure and satisfaction from accomplishments in job and career. Typically the person had had a variety of career experiences and had relocated several times. Both job and career satisfaction tended to be quite high.

Members of this group readily accepted and acknowledged negative stress in all aspects of their environment. They were challenged by it and may even have sought it out. But their feelings of negative stress were counter-balanced by higher ratings of positive stress on virtually all of the work-related stress dimensions. They thrived on sifting through the negatives to find the positives, and frequently took others along the same path. Their upbeat work attitude is reflected in the positively balanced Discrepancy scores depicted in Figure 5 (p. 24).

Nonwork Stressors (Personal and Familial). There is not much that stands out in the nonwork arena for the Hi/Hi group, primarily because these people tended not to be heavily invested in home and family and thus were rather insulated. They were very self-oriented and self-absorbed and often reported high levels of both positive and negative personal stress. To get the nonwork scoop on these managers it was often necessary to check with family and friends. They frequently described the typical Hi/Hi as overinvested in job and career: a fast-

moving and stress-generating person who can sometimes be rather challenging to live with. It was not unusual for members of this group to be characterized as “stress producers or stress carriers” by both family members and co-workers.

The Discrepancy scores presented in Figure 6 (p. 25) show a relatively strong pattern of positive balance except around marital issues and the spillover of work onto nonwork, and vice versa. Such problems tended to emerge frequently since the managers in this quadrant were not inclined to pay as much attention to matters of the home as to job and career.

Life Events. Hi/Hi managers were gung-ho doers who liked to experience the world. Thus, they tended to seek out and experience an abundance of powerful life events. When things did start to calm down, true Hi/Hi managers were not above creating their own crises. As indicated in Figure 7, the typical manager in this group has the highest

Figure 7

AVERAGE NUMBER OF STRESSFUL LIFE EXPERIENCES FOR THREE MANAGERIAL GROUPS (Stress/Adjustment)

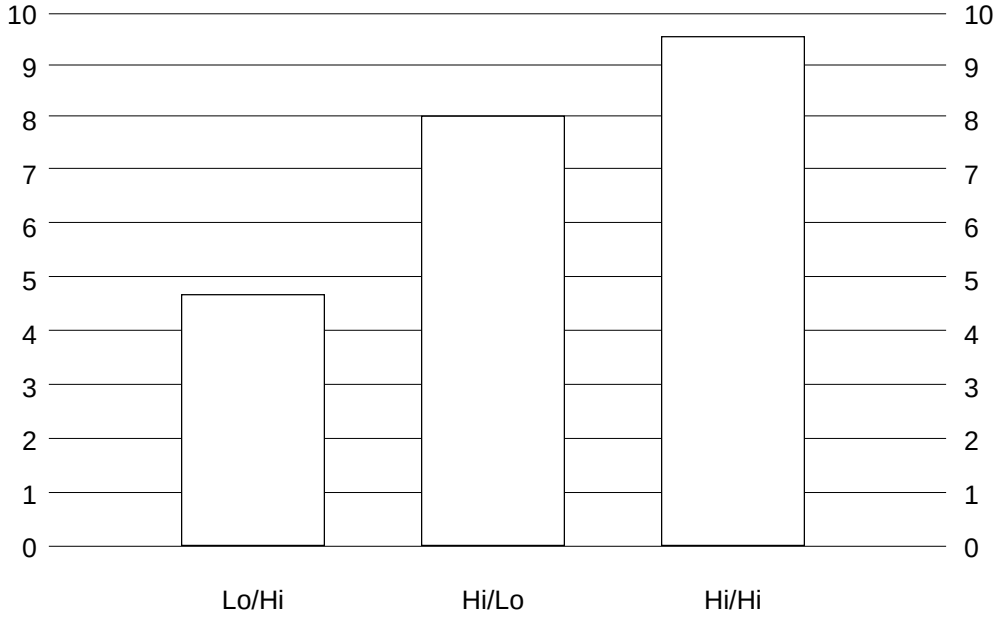
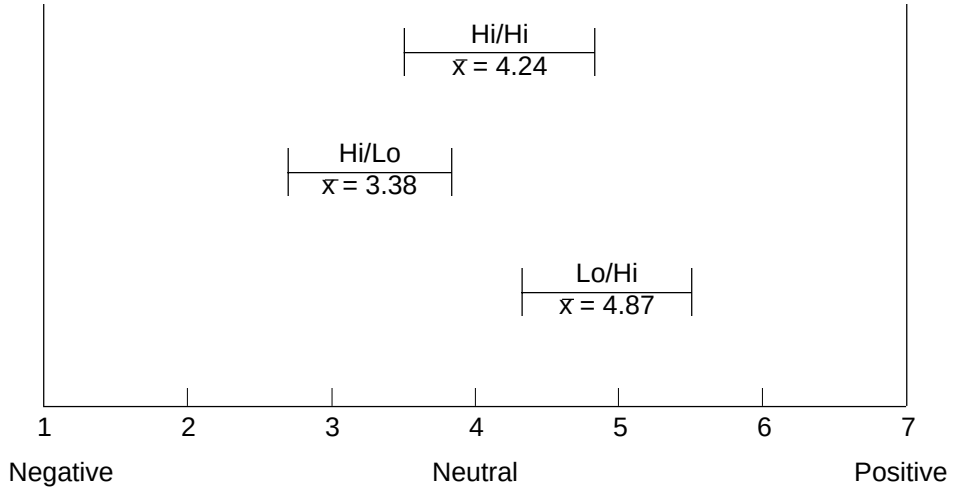


Figure 8

PERCEIVED IMPACT OF STRESSFUL LIFE EXPERIENCES (95% Confidence Interval Surrounding Mean Impact for Each Group)



number of total life events on the LES scale. But these events were routinely viewed as challenges and opportunities with a perceived impact that ranges somewhere between neutral and positive (Figure 8).

Personality Factors. The managers in this group tend to be below the norm on Emotionality and above the norm on Extraversion on the Eysenck Personality Questionnaire. Possible descriptors include *outgoing, responsive, lively,* and *leadership-oriented*. They were more assertive than members of the other quadrants and had a fairly high level of self-esteem. Their Locus of Control scores are toward the Internal end of the scale and their modus operandi might be characterized as, "When in doubt, do something."

Unconscious Defense Mechanisms and Conscious Coping Styles. Hi/Hi managers made only moderate use of unconscious defenses. They preferred to rely more heavily on conscious coping. Their most preferred ego defense was denial (the least preferred defense of The Avoider). When in trouble, managers in this group sometimes denied the very existence of events or at least their own feelings in response to these events.

A strong characteristic of the Hi/Hi manager is reflected in preferences for the use of mapping and reversal in conscious coping efforts; *mapping* refers to trying to anticipate events or problems as a preliminary step to the gathering of useful data (a good mapper explores the environment to be prepared and to enhance decision making); *reversal* is often reflected in behaviors that are the opposite of how the person truly feels (laughing through the pain or acting calm while others panic are good examples of this coping strategy).

Active Coping Factors. Active coping is what managers in this group were all about. They have the lowest average ratings on Avoidance and the highest average ratings on Agency, or feeling empowered to take control over situations. A look at the history of these managers reveals many examples of prior mastery and high levels of both action-proneness and action potential. These managers tended to be optimistic, self-confident, and keenly aware of their strengths and weaknesses. If they had a problem-solving weakness it was that they were solution-focused in the extreme. Their preference was to take action; and the sooner the better.

Psychological Health Status. The typical Hi/Hi reported a high number of symptoms on the SCL-90R, but they were experienced as only mildly discomforting. Slight elevations are present on the Anxiety and Obsessive-Compulsiveness dimensions, probably because these managers often saw others as blocking their attempts to get things accomplished. They rarely sat still long enough to get depressed.

Overall Status. Managers in this group received the highest ratings for Self-awareness, Self-objectivity, Tractability of Experienced Demands and Problems, Overall Current Coping Effectiveness, and Overall Adjustment. They were up-front people with an aggressive stance toward stress and problems in general. Others were often intimidated by their self-confidence and annoyed by their hard-driving style. Nevertheless they were effective copers who blasted away at problems until they hit upon a workable solution. We labeled them *Attackers* because of their tendency to charge right into stressors.

Summary. Attackers, like Avoiders, tended to experience high levels of stress. They, however, were markedly more adept at handling these demands and pressures. Although they acknowledged the negative

stressors they encountered, they were able to balance these with positive implications from the same environment. They welcomed change as an opportunity and challenge, rather than avoiding it as a threat or demand.

Attackers maintained a high level of self-esteem and self-efficacy, and their positive outlook fed a cycle of confidence, taking action, achieving success, positive feedback, building confidence, and so on. Perhaps the best way to characterize Attackers is that they are "action-oriented" in their approach to problems. To avoid or ignore a problem is simply unacceptable. Even when uncertain what to do, the true Attacker did something. They were open to feedback although they may not solicit it. They are quick to sort out what worked and what didn't but may have left a trail of false starts along the pathway to success. Importantly, they learned from their mistakes in the trial-and-error process.

Low Stress, High Adjustment (The Adaptor).

Job and Career Stress. Lo/Hi managers received the lowest ratings of negative stress on all of the work-stress dimensions. Their positive ratings were on a par with those received by The Attackers. In general, they reported great satisfaction with job and career, but they were not as driven in the work domain as the typical Attacker. There was a mellow side to these managers that facilitated their ability to see more of life as less stressful. They received the most positively balanced ratings on the Discrepancy scores (see Figure 5, p. 24), which is not surprising given the low levels of negative stress they reported.

Nonwork Stressors (Personal and Familial). It is in the nonwork arena that the Lo/Hi manager really outshone the rest. Marital Stress receives low scores on the negative and high scores on the positive (see Figure 6, p. 25). Family and Interpersonal Stress are also rated low as negative stressors. The typical manager in this group reported attaching more importance to family activities and was more likely to invest time in both spouse and children. Average ratings of both Marital Satisfaction and Marital Stability are highest for members of this group.

Life Events. Relatively speaking the average Lo/Hi manager reported experiencing fewer life events, and those reported tended to be evaluated quite positively (see Figure 7, p. 29). There was a bit of

healthy denial expressed by members of this group, such that they tended to minimize the importance of events over which they had no control. In many ways this denial seemed to provide a double insulation against negative stress, because less of life was viewed as stress-producing to begin with. Thus, less active coping was required.

Personality Factors. As with The Attackers, personality factors play a key role in interpreting the overall adjustment of members of this group. They tended to be calm, even-tempered, controlled, and unworried managers as evidenced by an average Emotionality score that is the lowest in the study. They judged their success not by external validation but by meeting their own standards of self-actualization. Their Locus of Control scores are very much toward the Internal end of the scale, and they sought out challenges and learning opportunities consistent with their high ratings on Self-confidence and Self-esteem. They liked to be the center of attention and tended to seek out leadership roles (as reflected in their high Dominance and Exhibition scores on the Edwards Personal Preference Inventory; Edwards, 1954). Although they were not seen as passive or submissive, neither were they described as overly aggressive or assertive, descriptions often given to the typical Attacker.

Unconscious Defense Mechanisms and Conscious Coping Styles. Managers in this group relied very little on unconscious defense mechanisms. Like the attackers, they preferred to process strategies at the conscious coping level. They seemed particularly reluctant to intellectualize, i.e., to control emotions through excessive dependence on rational interpretations and justifications.

Active Coping Factors. To a slightly lesser degree than the Attackers, Lo/Hi managers were action-prone and optimistic about the possibility of attacking stress at its source. They received high ratings on Agency and Mastery, indicating a history of success in active problem-solving situations.

Psychological Health Status. Members of this group were extremely well-adjusted psychologically. They tended to receive low scores on all dimensions of the SCL-90R symptom checklist, particularly on the dimensions of Anxiety and Depression. They have the highest Happiness ratings in the study; they were basically content with themselves as individuals.

Overall Status. Managers in this group tended to be leading happy and well-adjusted lives. They had created an effective balance between career and nonwork life and were highly rated on the job. They saw their lives as less stressful and tended to rate most events as positive. Their optimistic and humorous approach to problems and potent events was infectious, and others enjoyed working with and for them. They received high marks for Tractability of Problems, Current Coping Effectiveness, and Overall Adjustment. Because of their flexible problem-solving style and their laid-back nature, we labeled members of this group *The Adaptors*.

Summary. Of the three major groups, The Adaptors appeared to utilize the most mature coping strategies. Their heightened adjustment was a reflection of their ability to combine most of the effective skills of the Attacker with a laid-back view of life that permitted them to experience fewer events as stressful to begin with.

Adaptors tended to place more emphasis on the positive aspects of potentially stressful events that they encountered. This positive cognitive appraisal process worked to their benefit as they scanned their environment with a minimum of ego defenses to alter realistic evaluations. They were aware of the potential negatives associated with a given situation, but they neither dwelt on the dangers nor ignored them. Rather, they focused their attention on keeping their sense of humor and getting on with the tasks at hand. They were less likely to view events as stressful and threatening and more likely to recover quickly when stress did crop up.

Adaptors were neither submissive nor passive but they were not as aggressive or assertive as the compulsive attacker. They quietly took direct action on the problems they encountered and were not afraid to seek help from other people. Like The Attacker, they benefitted from the positive self-image cycle.

A Learning-sequence Model of Developmental Experience

Our exploratory project at the Center was directed toward understanding the processes that successful managers employ as they endeavor to learn from their work and nonwork experiences. In effect, we were attempting to study how people "learn how to learn" or "learn how to develop" across time in a career. Much of the study involved looking at the real-life learning activities of a small group of high-potential managers over the course of a year. In doing this, we have developed a number of working hypotheses and a working model of the learning process (see Lombardo, Bunker, & Webb, in press).

One of the key elements of the model is our understanding of the learning sequence that managers utilize when tackling a new and unfamiliar developmental task. The key elements of the learning sequence are pictured in Figure 9 (p. 36). They are:

Thinking: Working alone to develop strategy and vision.

Feeling: Reflecting on one's feelings, emotions, and attitudes about the event and its impact.

Accessing Other People: Using other people for assistance and support in the learning process.

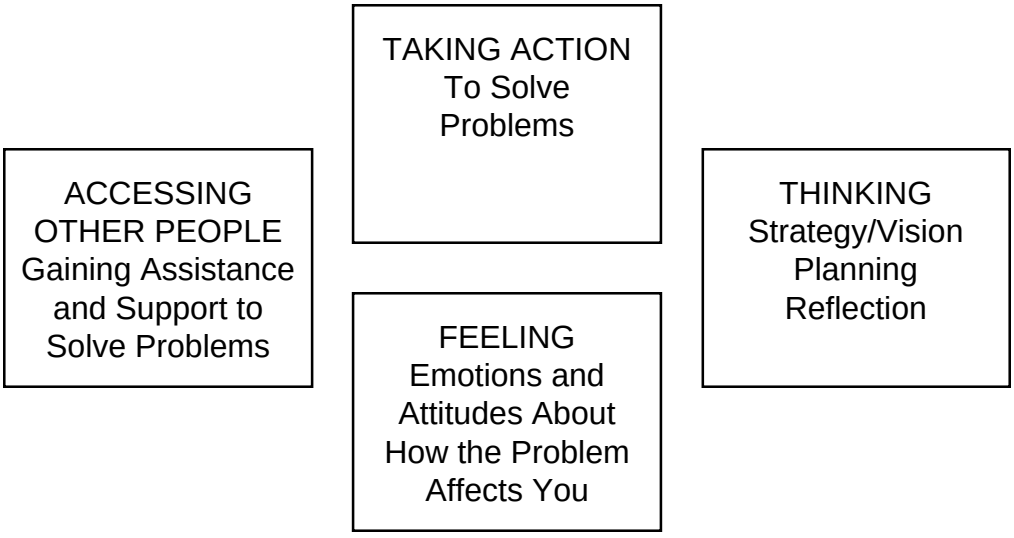
Taking Action: Acting on the problems as a means of getting resolution, reducing stress, and learning.

Another element of the model is the framework of coping types that was developed in the stress research project described above.

We are not proposing a universal or preferred directionality in our learning sequence. Indeed, it is the variability in sequencing and coverage of the boxes that seems most reflective of differences in ability to learn from experience. In the section below we will examine the patterns displayed by Avoiders, Attackers, and Adaptors as they confront the stress of a developmental learning experience.

Figure 9

LEARNING SEQUENCE



The Avoider as Learner

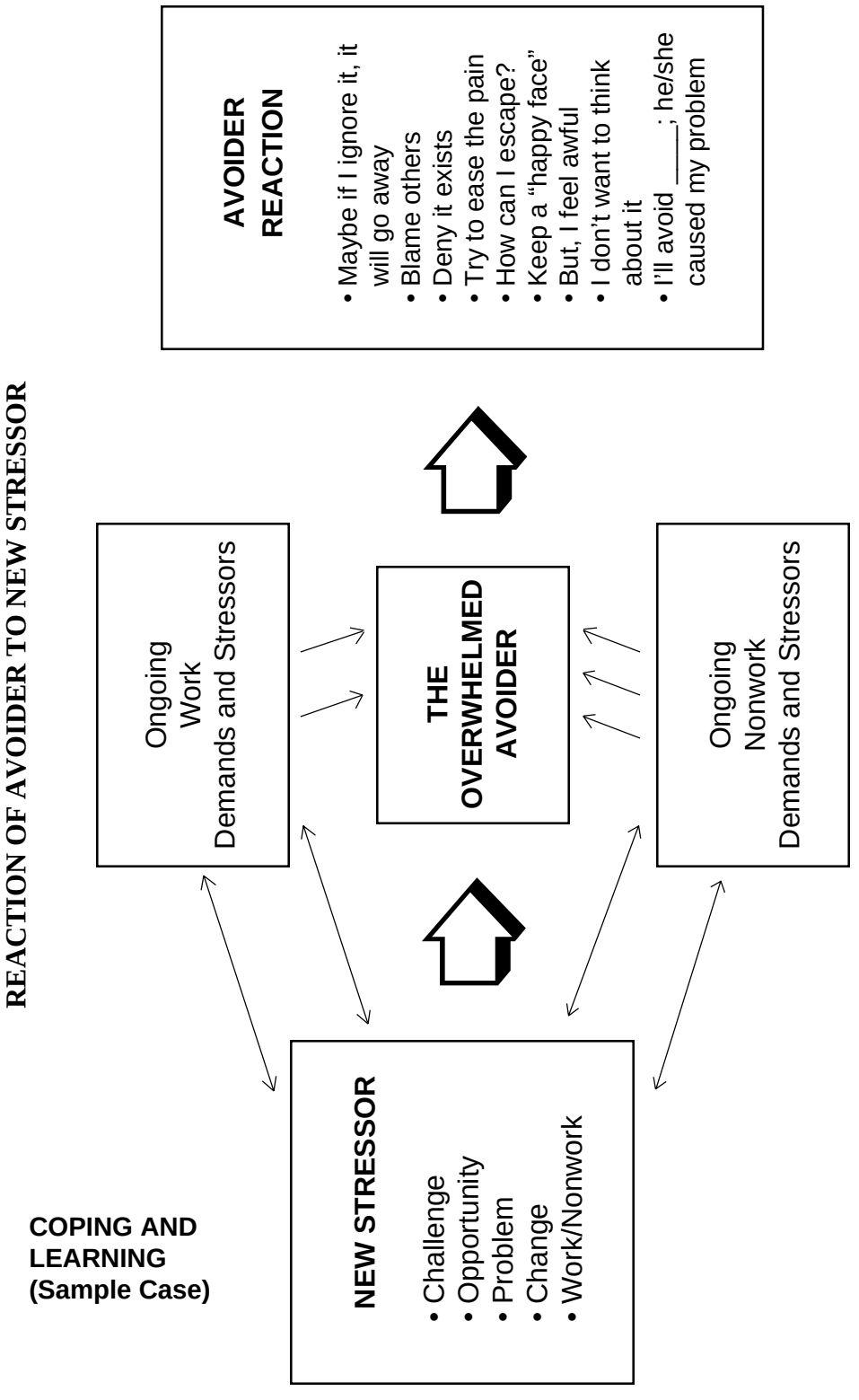
Figure 10 contains a graphical representation of the self-talk and behavior of a person responding to a new stressor as an Avoider. By way of example, think of the new stressor as a developmental assignment or a potentially powerful learning experience emerging either from work or nonwork.

Managers often respond as Avoiders partly because they are already feeling overwhelmed by ongoing stress. In this context, the new demand or challenge is not viewed as a welcome event. The resulting reaction is quite predictable: Low self-esteem and low self-confidence, coupled with little mastery in past experiences, sets the Avoider up to expect failure in most challenging situations. A typical Avoider reaction is to try to ignore the issue hoping that it will resolve itself or simply go away. Major emphasis is often focused on reducing symptoms and finding ways to feel better.

Not wanting to appear vulnerable, Avoiders often try to hide their frustration and pain behind a happy face, but those who know them well will recognize the signs of discomfort. If these initial strategies fail,

Figure 10

REACTION OF AVOIDER TO NEW STRESSOR



Avoiders begin blaming the organization or others for their problems and stress. Overall, when managers are in the Avoider mode they tend to feel quite powerless either to solve their problems or to escape from them.

Figure 11 shows how this attitude toward stress and coping plays out in the learning sequence. More often than not, people who are avoiding get stuck in endless loops of ineffective reflection and counter-productive complaining. They enter the sequence worrying about how they are feeling, and upset that "nothing good is likely to come from the situation." They may involve others in the cycle but not in a way that facilitates their learning. Instead, they tend to connect with kindred spirits who can confirm the tragedy of their plight and sympathize with their symptom-relief strategies. Hence there is the irony of avoiding managers seeking out others who are least able to provide the flexible "kick in the pants" that might move them toward more adaptable solutions. The last thing Avoiders want to hear from others is that they need to face up to the source of their problems.

One of the participants in our learning study characterized The Avoider's use of others quite colorfully as "generalized bitching and moaning."

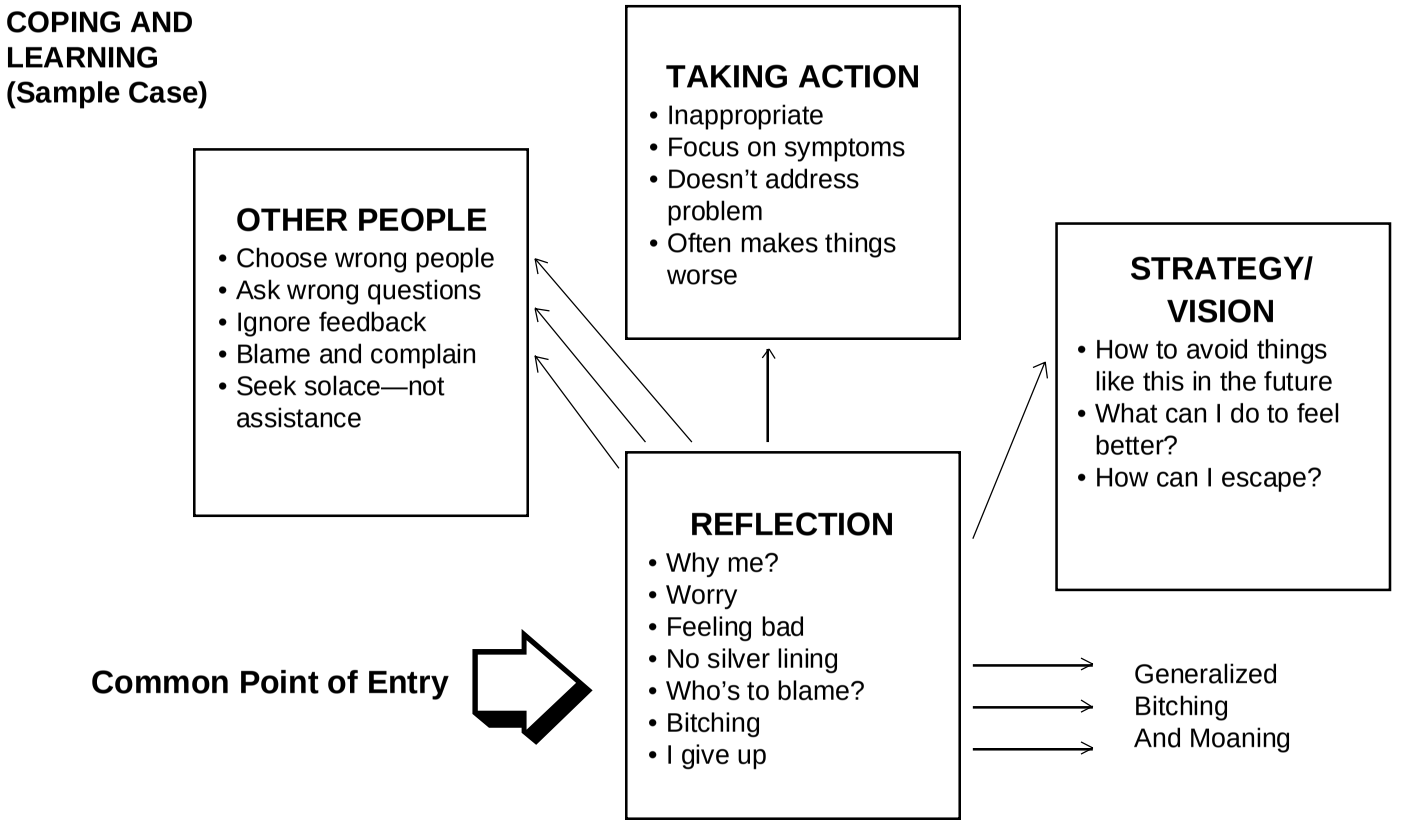
It should be apparent that when managers are operating as Avoiders they are rather ineffective at working their way through the boxes of the learning sequence. They rarely confront their stressors directly and their repeated lapses into avoidant behavior yield scant opportunities for learning anything new. They often remain blocked until a brave friend or co-worker literally boots them out of the Feeling box or drags them kicking and screaming through the other three stages of the learning sequence. Barring an intervention of this type, avoidance strategies can dominate the process, generally resulting in minimal action or action that is misguided and focused on finding ways to escape the pain of the situation.

The Attacker as Learner

In many respects, people in the Attacker mode are very effective developmental learners. They are committed to taking action and confronting problems, and open to the recognition that learning opportuni-

Figure 11

IMPACT OF STRESS ON LEARNING SEQUENCE OF AVOIDER



ties exist (see Figure 12). New stressors are met head-on with action strategies and unbridled optimism. A strong Attacker lives and dies by trial-and-error learning; quick to jump to the forefront of the battle, encouraging others to "follow or get out of the way." "When in doubt, act" is often their battle cry. People tend to rally around Attackers, partly out of intimidation and partly because they appear so confident about what to do. Their unbridled enthusiasm is often contagious and others get caught up in the rapid charge toward a solution.

A true Attacker almost always enters the learning sequence in the Taking Action mode (see Figure 13, p. 42). "Let's do something; we don't have time to plan. You got a problem? I got a solution!" Or even, "I've got lots of solutions; got any problems you want fixed?" Other people are generally not involved until the Attacker takes an initial shot at independent action. When other people are brought into the process, it is often as supportive worker bees, rather than as independent sources of input or support. "Do this by tomorrow" or "Bring me such and such information by the end of the week." Attackers seem to enjoy the stress of most demanding situations, and are capable of generating significant amounts of the same for others.

The Attacker gets into trouble when solving a particular problem requires strategizing and visioning or legitimate input from other people. It is difficult to convince the hard-charging Attacker that slowing down long enough to plan and strategize might actually save time. They also have trouble accepting the fact that involving others in the process can cut down on the number of painful failures that often accompany unsuccessful trial-and-error ventures.

On a more positive note, Attackers tend to be skillful at drawing learnings from both successful and unsuccessful initiatives. They may make multiple mistakes attacking each and every new situation, but they generally take away valuable lessons from the experience. Overcoming this preferred style is tough going, but probably represents fine-tuning rather than a reconstruction of the learning process.

Figure 12

REACTION OF ATTACKER TO NEW STRESSOR

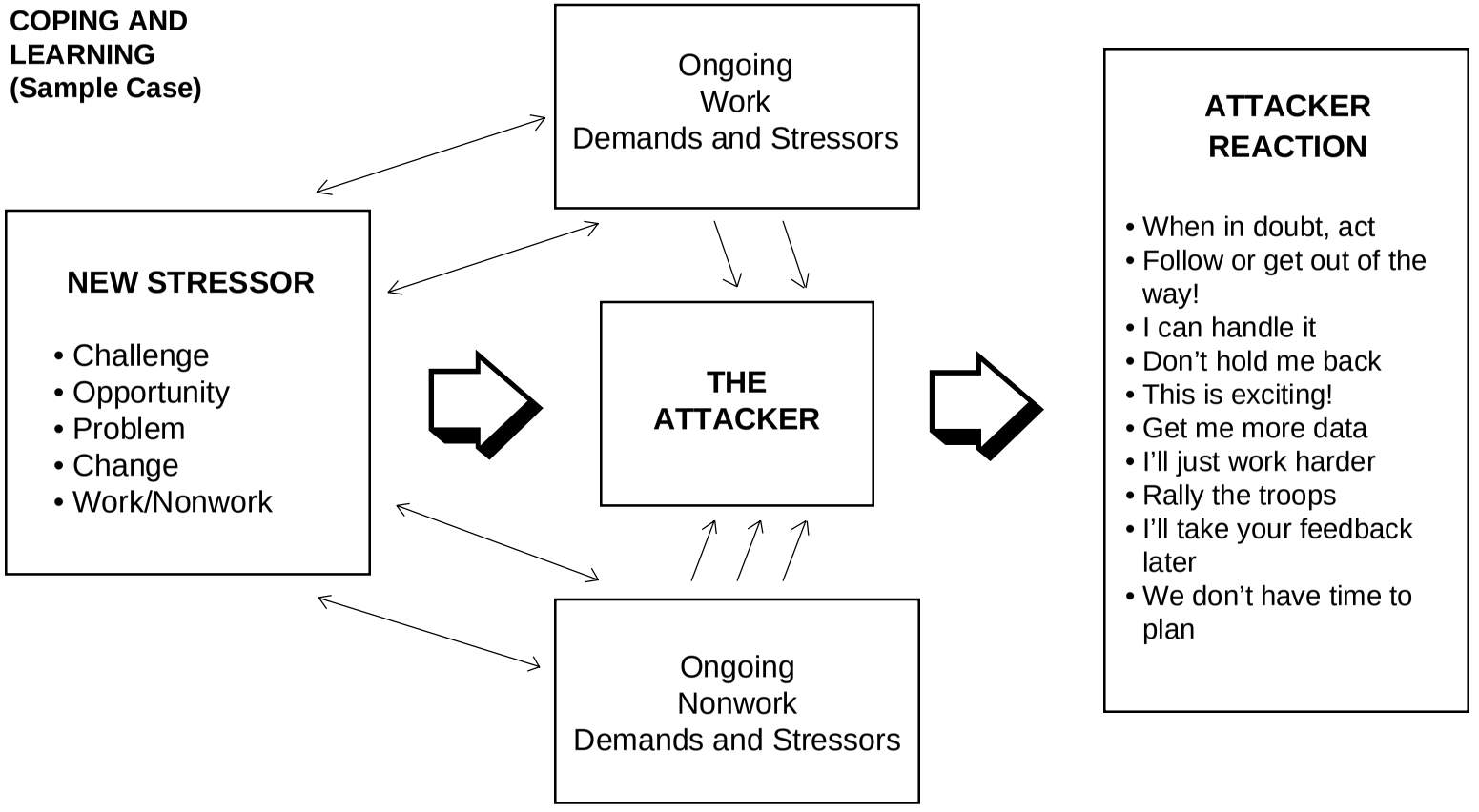
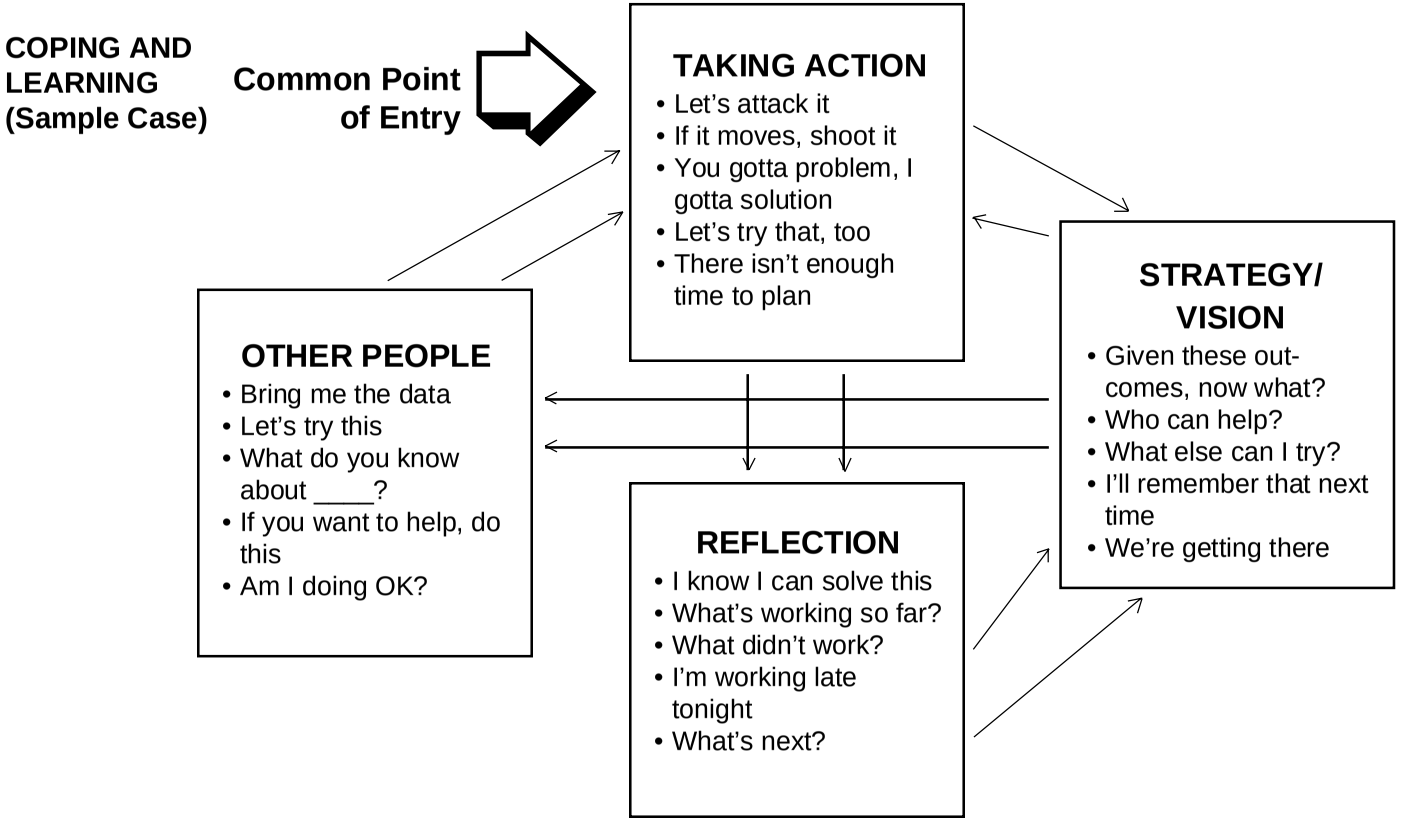


Figure 13

IMPACT OF STRESS ON LEARNING SEQUENCE OF ATTACKER



The Adaptor as Learner

The key to the success of The Adaptor lies in low emotionality and in the flexible shaping and selection of responses to fit the problems encountered. Each new learning challenge is approached with optimism and good humor with an eye peeled for those who can provide meaningful input and assistance (see Figure 14, p. 44). The true Adaptor is not afraid of action and will plunge right in if the direct approach is appropriate. However, unlike The Attacker, the Adaptive manager can be just as comfortable postponing action long enough to evaluate alternative strategies and to involve others in a meaningful way.

An Adaptor might enter the learning sequence in any of the boxes, but is most likely to be found Thinking or Accessing Others as a first step (see Figure 15, p. 45). They tend to start by asking questions to clarify their thinking; and to subsequently move into a sorting of rules of thumb stored from the mastery of previous learning challenges. Their upbeat attitude and quiet confidence encourage others to contribute actively to the thinking and strategizing process. This typically results in effective action-planning and implementation. The Adaptor is not merely open to feedback but actively seeks and responds to it. New information is sorted and stored for reference in future learning situations.

Figure 14

REACTION OF ADAPTOR TO NEW STRESSOR

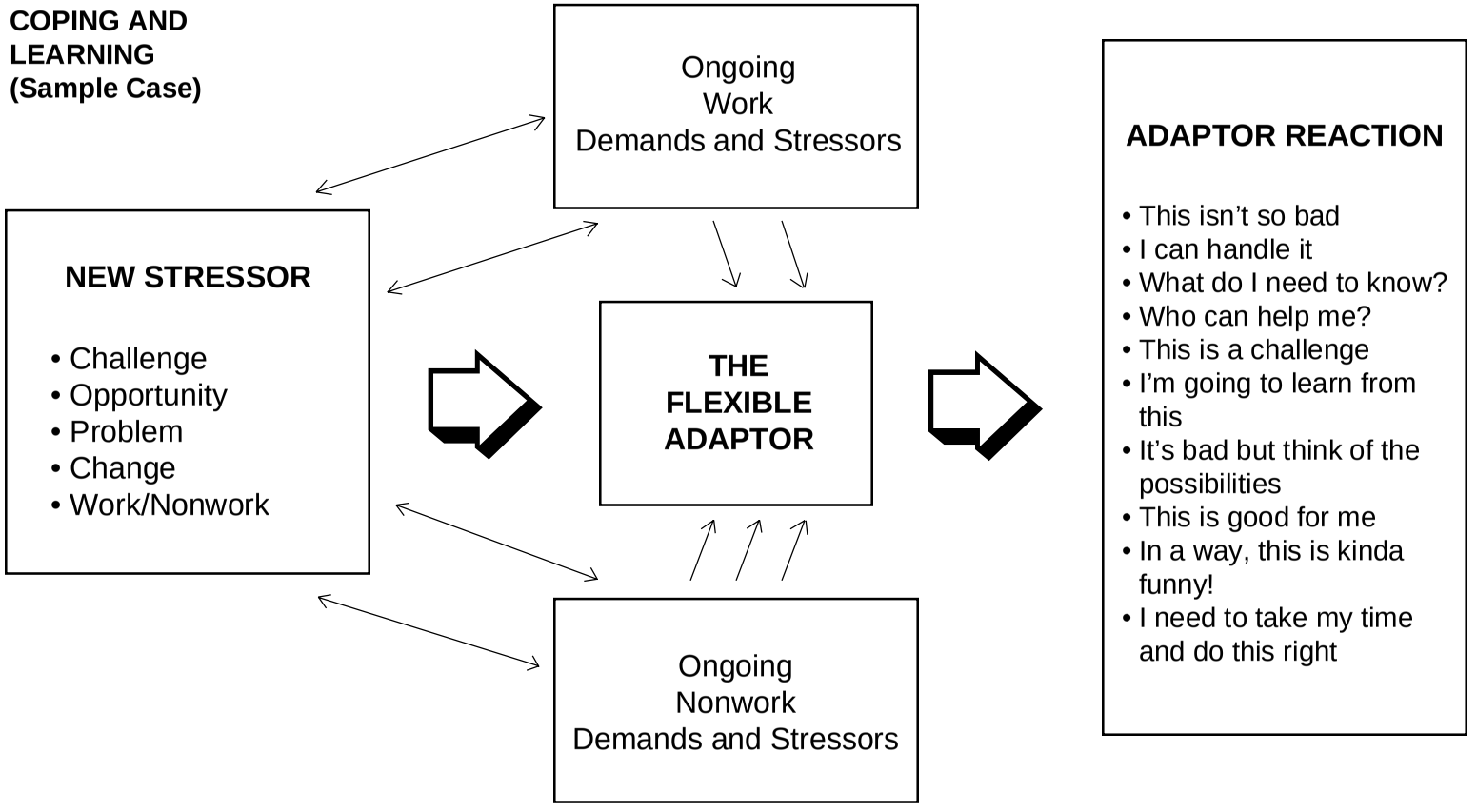
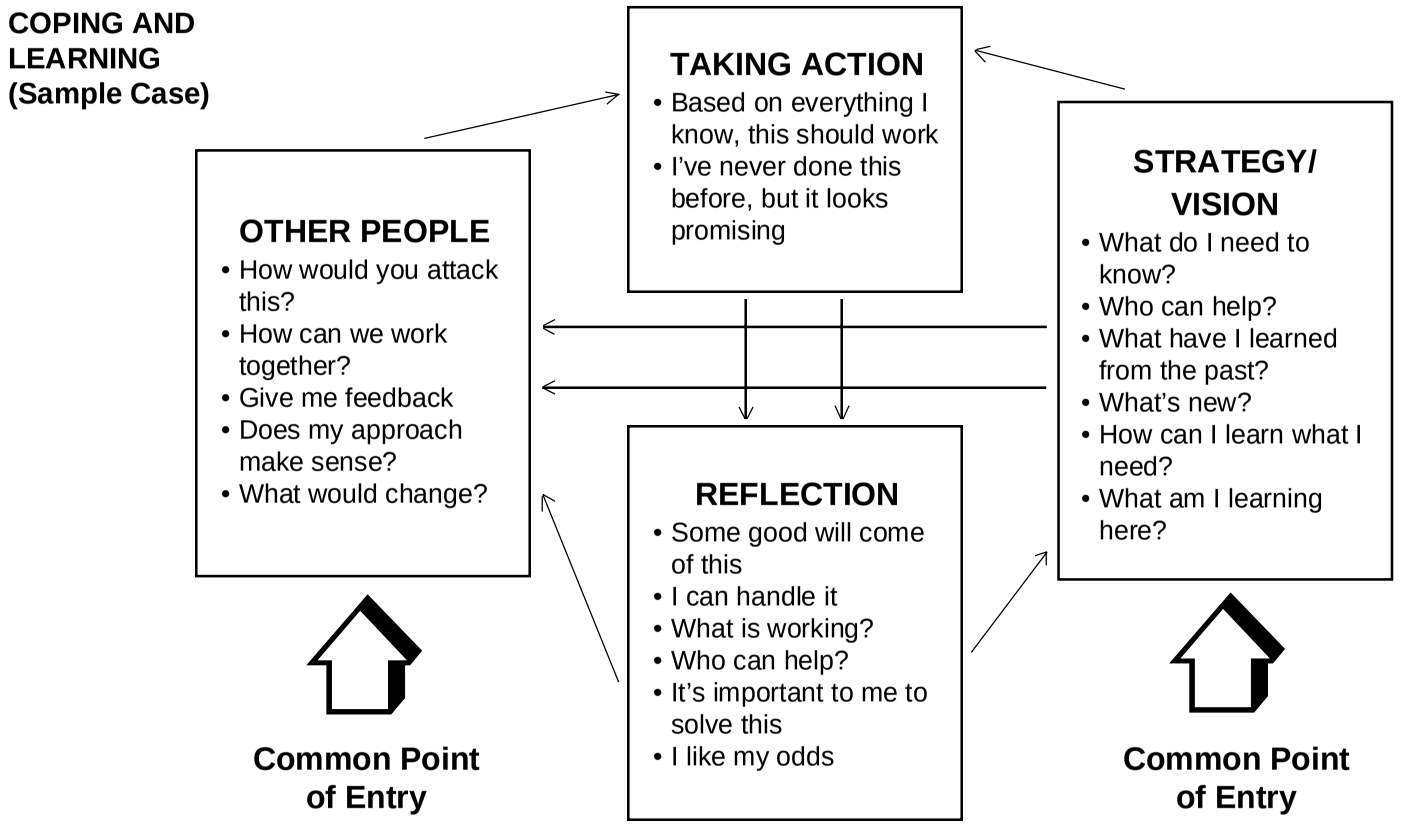


Figure 15

IMPACT OF STRESS ON LEARNING SEQUENCE OF ADAPTOR



Making Stress Positive

The foregoing characterizations suggest how the stress and coping cycle can affect the executive-development process by its effect on a manager's ability to learn from powerful life experiences at work and at home. Our exploratory project has only begun to look at the complex learning-to-learn phenomenon, but we have uncovered some shared elements of successful coping that appear to facilitate growth and development in potent learning situations.

One of the facts of life in adult development is that the positives of growth, learning, and improvement are almost always accompanied by feelings of uncertainty, discomfort, stress, threat, and often loss and pain. As one of the managers in our learning study so aptly stated, "Hey, this learning stuff isn't much fun!" Responding to a new challenge or learning to do something in a new or different way typically requires going against the grain of one's preferred way of doing things. When these new challenges or demands require strategies and actions that fall outside of one's comfort zone of typical behavior, the result can be high levels of stress and discomfort, with accompanying urges to return to prior ways of responding. In many cases a manager is not even aware that old habits and patterns are being repeated.

Breaking free of what Langer (1990) calls "mindless" response patterns is a difficult task. By mindless responding she means feelings or actions that are driven by well-established mind-sets arising out of personality and past experience. The mindless coper tends to observe and categorize problems according to gross generalizations that may not be applicable to the current situation. Effective copers share some traits and characteristics that facilitate their ability to challenge old ways of doing things, thereby opening the door to enhanced learning opportunities.

The rewards that follow can be great. Adaptive copers often succeed in life because they welcome (even seek out) the opportunities that foster growth and change. They share a number of characteristics and response patterns that help them minimize the impact of negative stressors while capitalizing on the positive. Among the shared attributes are the following (see also Figure 16, pp. 48-49):

Recognizing and owning up to the real sources of stress in one's life. Everyone has a tendency to push aside those demands and challenges that are most troublesome and most outside of one's comfort zone.

Tackling stressors head-on rather than avoiding them or seeking symptom relief. Successful coping is first and foremost successful problem-solving. Unaddressed issues can be found at the heart of most serious stress and strain situations.

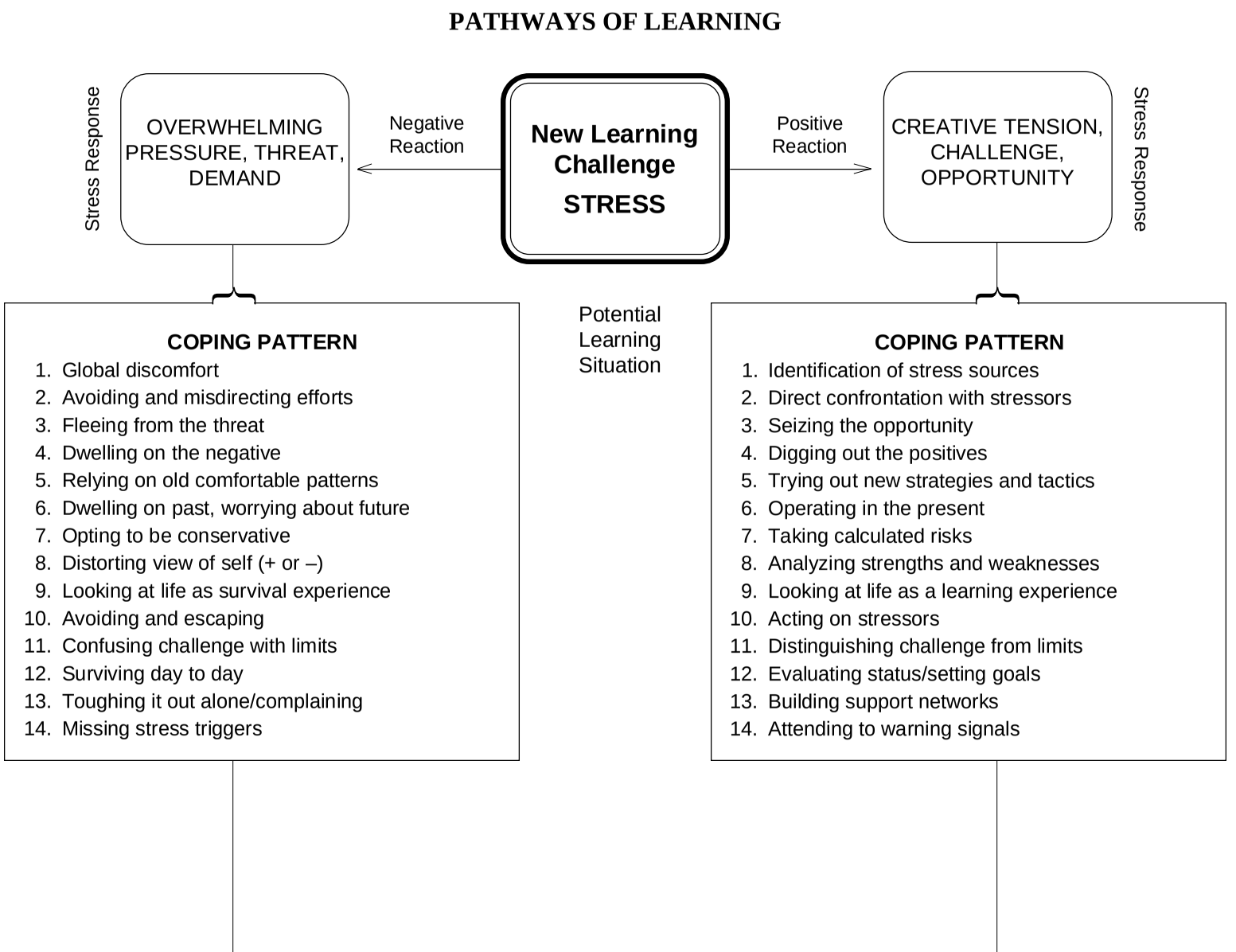
Viewing change as opportunity and challenge, rather than as threat and demand. Most stress situations (and most opportunities for learning) involve a degree of change, ambiguity, and uncertainty. Treating change situations as opportunities for growth and challenges to one's abilities sets up a positive dynamic that generally leads to constructive action and expansive strategy development. Conversely, the perception of threat or demand is more likely to trigger entrenchment, withdrawal, and a retreat into defensive behavior—none of which is likely to lead to significant problem-solving or meaningful learning.

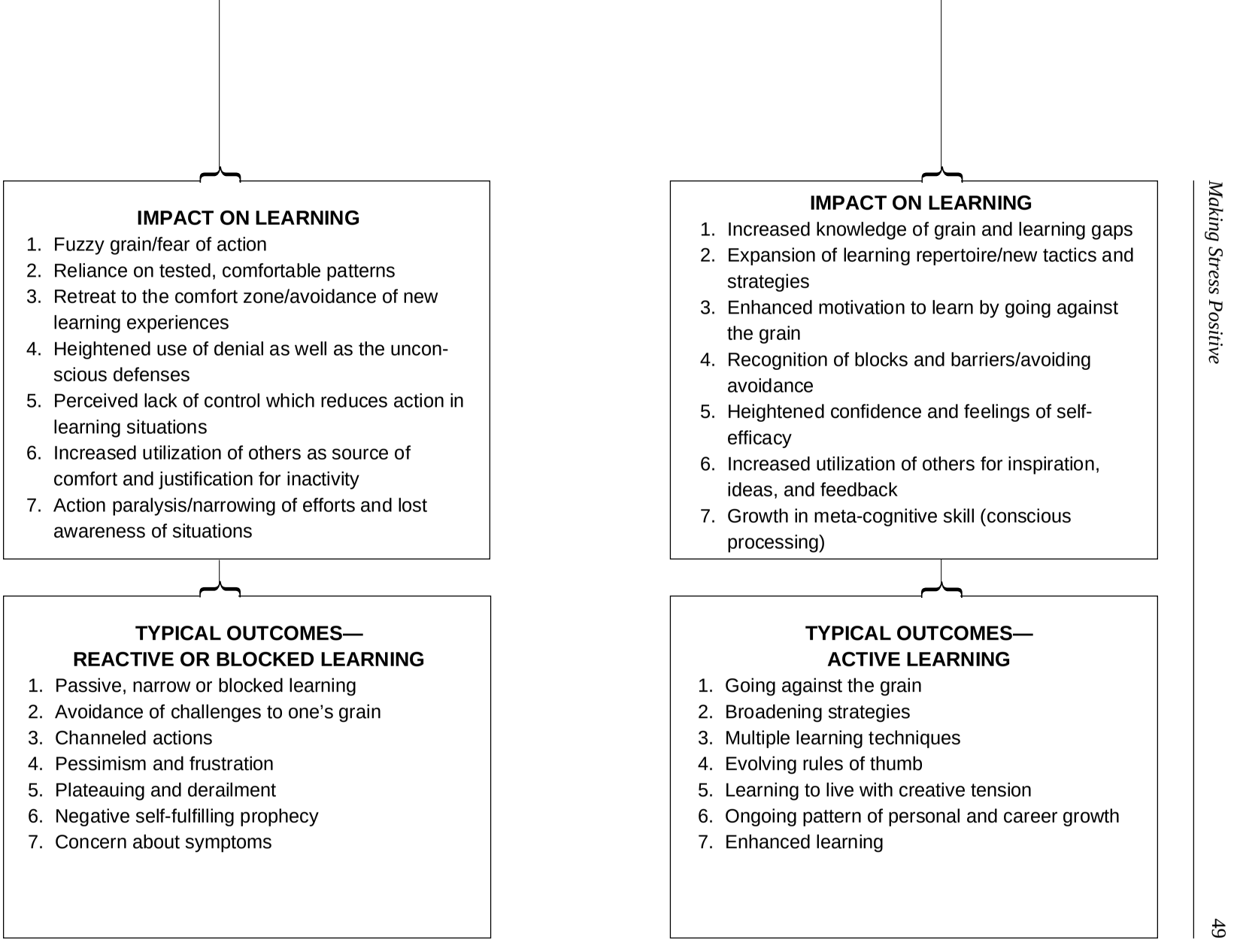
Experiencing negative stress but maintaining a focus on the positive implications. No one can deny that potent life events and situations generate significant levels of negative stress. Although it is important to acknowledge and face up to those feelings, it is equally important to seek out the positives that often lay hidden just beneath the surface. The old saw that "every cloud has a silver lining" is an appropriate adage. Effective copers *seek out* ways to *create* a silver lining. The action words are emphasized because this is not a wait-and-see proposition: You have to make it happen.

Being flexible in shifting strategies to suit the problems encountered. Diverse problems require diversity in responses. Some demands require independent action and some require working through others. Some crises can be solved by gathering total information and others must be attacked using intuition and gut feel. A carpenter with two hammers and no saw will nail together a lot of boards that form nothing in particular.

Operating in the present with an educated memory of the past and a keen eye to the future. In learning from the past and planning for the future, one must keep in mind that the only day he or she can do

Figure 16


PATHWAYS OF LEARNING
Stress Response
OVERWHELMING PRESSURE, THREAT, DEMAND
Negative Reaction
New Learning Challenge
STRESS
Positive Reaction
CREATIVE TENSION, CHALLENGE, OPPORTUNITY
Stress Response
COPING PATTERN
1. Global discomfort
2. Avoiding and misdirecting efforts
3. Fleeing from the threat
4. Dwelling on the negative
5. Relying on old comfortable patterns
6. Dwelling on past, worrying about future
7. Opting to be conservative
8. Distorting view of self (+ or –)
9. Looking at life as survival experience
10. Avoiding and escaping
11. Confusing challenge with limits
12. Surviving day to day
13. Toughing it out alone/complaining
14. Missing stress triggers
Potential Learning Situation
COPING PATTERN
1. Identification of stress sources
2. Direct confrontation with stressors
3. Seizing the opportunity
4. Digging out the positives
5. Trying out new strategies and tactics
6. Operating in the present
7. Taking calculated risks
8. Analyzing strengths and weaknesses
9. Looking at life as a learning experience
10. Acting on stressors
11. Distinguishing challenge from limits
12. Evaluating status/setting goals
13. Building support networks
14. Attending to warning signals


IMPACT ON LEARNING
1. Fuzzy grain/fear of action
2. Reliance on tested, comfortable patterns
3. Retreat to the comfort zone/avoidance of new learning experiences
4. Heightened use of denial as well as the unconscious defenses
5. Perceived lack of control which reduces action in learning situations
6. Increased utilization of others as source of comfort and justification for inactivity
7. Action paralysis/narrowing of efforts and lost awareness of situations
TYPICAL OUTCOMES—
REACTIVE OR BLOCKED LEARNING
1. Passive, narrow or blocked learning
2. Avoidance of challenges to one's grain
3. Channeled actions
4. Pessimism and frustration
5. Plateauing and derailment
6. Negative self-fulfilling prophecy
7. Concern about symptoms
IMPACT ON LEARNING
1. Increased knowledge of grain and learning gaps
2. Expansion of learning repertoire/new tactics and strategies
3. Enhanced motivation to learn by going against the grain
4. Recognition of blocks and barriers/avoiding avoidance
5. Heightened confidence and feelings of self-efficacy
6. Increased utilization of others for inspiration, ideas, and feedback
7. Growth in meta-cognitive skill (conscious processing)
TYPICAL OUTCOMES—
ACTIVE LEARNING
1. Going against the grain
2. Broadening strategies
3. Multiple learning techniques
4. Evolving rules of thumb
5. Learning to live with creative tension
6. Ongoing pattern of personal and career growth
7. Enhanced learning

anything about is *today*. Ineffective copers are often guilty of dwelling on their past mistakes and worrying about an uncertain future.

Taking calculated risks. Risk is a self-defined phenomenon. An action viewed as a monumental gamble by one person is often seen as a shrewd risk by a second person confronting a similar situation. The key to successful coping and learning often involves challenging one's assumptions about what can and cannot be done. Taking the risk to try something new or to move outside of one's realm of comfortable behavior is often a critical step in developing new skills and building confidence in a new domain.

Developing a knowledge of strengths and weaknesses. One of the prime characteristics of successful copers is self-objectivity—that is, knowing where one's strengths lie but also acknowledging what one doesn't do well. Acceptance of one's deficits frees the person to compensate and to seek out learning situations that will foster development. Developing a knowledge of strengths and weaknesses is an active process that generally involves cultivating open communications with boss, subordinates, peers, friends, spouse, children, etc. Most people are reluctant to provide candid feedback unless encouraged and reinforced for doing so.

Looking at life as a series of ongoing learning experiences. Effective copers tend to view stressful situations as part of the program, a fact of life that should be accepted and learned from. Approaching each event as a potential learning experience feeds into a positive self-image that paves the way for actively responding to future stressors.

Confronting stressors with action-oriented strategies. Coping is not a spectator sport. Responding effectively to new demands and challenges requires acting on the problems rather than responding to the symptoms. This can be particularly difficult since most people are prone to ignore or avoid those areas that are ambiguous, new, or particularly difficult for them.

Accepting what cannot be changed and working with it. At times stressors truly are out of one's personal control and not subject to elimination. The wise manager learns to recognize and accept such issues and focuses on finding ways to make the best of the situation. To fret and

worry over a stressor that cannot be changed is to opt for continual discomfort.

Taking stock of life status and goals. A great deal of stress can arise out of one's failure to pause periodically to assess what he or she really wants out of life and how to go about seeking it. It is pointless for a person to complain about one's lot in life if he or she has not taken the time to consider what is truly valuable.

Building a constructive support network on and off the job. There are two important components to this recommendation. The first is that support networks do not happen by accident or magic. People who enjoy support networks generally have invested considerable energy in building them. If a person wants to have friends or co-workers who can serve as sounding boards, he or she must actively seek out such relationships and be willing to be a listener and supporter as well as a user and beneficiary. The second important point is that friends or colleagues must feel free to give a person advice and counsel that conflicts with his or her own opinions when that is appropriate. A good friend or ally can help one break maladaptive patterns and pursue new learning strategies, but it is the individual's responsibility to create the climate that encourages and reinforces such feedback.

Knowing your own personal stress warning signals. One of the true keys to successful coping and learning lies in developing an awareness of when one feels stress and why. This may sound simple, but in fact everyone is prone to deny or discount those conditions that arouse the most discomfort. It takes a lot of courage to monitor one's symptoms and admit that certain situations or events cause us to feel stress. Heightened awareness represents a critical step in coming to grips with factors that can inhibit the experiential learning process.

Pathways of Stress, Coping, and Learning

Stress and coping provide vital links in the learning process because they can dramatically affect both willingness and ability to go against the grain. Figure 16 (pp. 48-49) traces the pathways by which we believe that stress and coping can serve to either enhance learning or hinder it.

Conclusion

Learning is neither limited to, nor well represented by, the things one does in school, college, or managerial-training programs. One of the most striking characteristics differentiating successful from unsuccessful executives is their heightened ability to learn from their experiences. Harnessing this powerful developmental tool will provide a core challenge for organizations seeking to maximize the use of management and executive resources in the decade ahead.

A further important distinction exists between "learning from experience" and "learning how to learn from experience." For example, a number of large, stable American corporations learned from their experience how to succeed in a predictable world where the major problems were recurring and the required information was almost always available. They learned how to solve those problems with structured, data-gathering strategies and stylized procedures. What they had not learned were ways to learn new strategies and tactics should the nature of their problems change, which of course they did.

We are just beginning to understand the learning-to-learn process as it applies to the development of managerial talent in organizations. We do know that breaking old habits is difficult and that experiential learning is not automatic. Stress can be a major stumbling block if it stimulates avoidance behavior in the manager. Findings from the stress research project reported on above suggest that stress and coping tendencies tend to be ingrained early in life and are difficult to modify. Most of us are not purely one type but rather Avoiders in some situations and Adaptors or Attackers in others. One of the keys to improving the ability to learn lies in taking some of "me at my best" and applying it to those situations where I look more like "me at my worst."

The shifting of coping skills to new areas is much easier to say than to do. The areas that each person tends to avoid truly are personal. In our exploratory work we have had trouble even convincing people that they have such blind spots or pockets of ineffective coping. Even when the problem is accepted and a commitment is made to learn a new way, the progress is slow, and the tendency to fall back on old habits and patterns is powerful.

We believe the failure to incorporate experiential learning, because it is uncomfortable, into executive development can have lasting impact both on the growth of individual leaders and on the development of a viable pool of leaders for the organization as a whole. The passed-over executive looks back and wonders how he or she came to be viewed as “too narrow and nonstrategic” to advance to the next level. The stymied organization questions why its leaders cannot respond to change and looks outside for talented people with the potential to tackle an uncertain and constantly changing environment.

We hope that future research will provide further information on how to facilitate the learning-to-learn process and on methods for moderating the pain that generally accompanies the transition.

Note

[1]Discrepancy Scores are computed for each participant on each dimension by subtracting the final negative stress rating from its associated positive rating. For example, a manager who was given a 4 in Positive Career Stress and a 3 in Negative Career Stress would receive a Discrepancy Score of +1 for the career dimension. This score indicates a relative trade-off on career issues toward the positive end of the continuum. On the other hand, a manager who was experiencing negative career stress at a 5 level, with very little evidence of compensating positives (say, 1), would receive a negatively balanced Discrepancy Score of -4.

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Appendix A:
A Brief Overview of Theory and Research in Stress and Coping

The following is a brief synopsis of past and current thinking and research on the issue of stress and coping. It is offered as a layman's guide to the subject and is in no way intended to represent a comprehensive literature review. Those seeking a more detailed conceptualization of the research are referred to Matheny, Aycock, Pugh, Curlette, and Silva Cannella (1986); Kutash, Schlesinger, and Associates (1980); and Schuler (1980).

Early Models of Stress and Coping

The early rudiments of a stress model emerged from the work of Cannon (1939), who outlined the adaptive cycle operating within organic physiological systems. He described attempts by the body to maintain homeostasis in the face of threats to its stability. Selye (1956) expanded on this notion by referring to stress as "the body's nonspecific response to any demand made upon it." He viewed stress as an additive process wherein work factors operated in concert with nonwork issues and positive demands combined with negative. Some have characterized his model as "person-environment fit," since he hypothesized that the perceptions and responses of the person can modify the potential effects of the demands and challenges.

The notion of person-environment fit continues to have widespread support in the literature, particularly among those researchers trained in industrial and organizational psychology (e.g., Caplan, Cobb, French, Harrison, & Pinneau, 1975; French & Caplan, 1973; McGrath, 1976; Miles, 1976).

Life-event Research

Another cluster of researchers has examined stress in terms of the quantifiable impact of powerful life events or experiences (Dohrenwend & Dohrenwend, 1974; Holmes & Rahe, 1967; Wolf & Goodell, 1968). The primary thesis of this work is that one can identify clusters or categories of events and experiences which are uniformly and predict-

ably stressful for nearly all people, and that these stressors can be weighted, counted, and scored. Thus, to know that people had experienced a given series of events in a given period of time would be to know that they had experienced a measurable level of stress.

The various life-event models have been challenged on three fronts: (1) on the grounds that stressors exist which are neither events nor experiences (e.g., crowding, pollution, anxiety, overall world affairs); (2) on the use of objectively developed item weights; and (3) on the validity of adding negative and positive stressor scores together (Johnson & Sarason, 1979; Sarason, Sarason, & Johnson, 1980).

Several researchers have presented data showing that positive stressors do not relate to criterion measures in the same fashion as undesirable events (Mueller, Edwards, & Yarvis, 1977; Vinokur & Selzer, 1975). Rahe (Rahe & Arthur, 1978) has also modified his position somewhat. He now argues that experienced stress can be altered by a "past experience filter" and by subjective appraisal of a given situation—an appraisal which can be influenced by such factors as importance, personality, coping resources, etc. Viewed in this way, an event that is viewed as a major negative stressor by one person may be ignored or perhaps even weighted positively by another.

Stress and Coping as a Transactional Process

Our own conception of stress and coping is most consistent with that offered by Richard Lazarus and his colleagues (Coyne & Lazarus, 1980; Lazarus & Cohen, 1977; Lazarus, Deese, & Osler, 1952; Lazarus & Launier, 1978).

In simplified form, Cohen and Lazarus (1979) characterize the Lazarus working model as:

> a person-environment transaction in which demands tax or exceed the resources of the person. Such stress is neither simply an environmental stimulus, a characteristic of the person, nor a response, but a balance between demands and the power to deal with them without unreasonable or destructive costs. (p. 145)

They go on to state that the model is cognitive-phenomenological in nature, meaning that the stress cycle is directly affected by how a person appraises an experienced event and how the resulting information is used to shape and alter the nature of the coping. They argue that "the nature of the stress phenomena requires that any comprehensive model of it be developed within a transactional, process-oriented perspective."

The Lazarus model is firmly rooted in the cognitive appraisal process. He describes "primary appraisal" as an evaluation of whether or not an individual perceives an event or experience as placing his or her well-being at risk in some way. The person must decide (consciously or unconsciously) whether a given situation is stressful, benign/positive, or irrelevant. A corollary evaluation involves deciding whether the situation is a "challenge" or a "threat." This perceptual distinction is important since responses to challenges generally are directed at mastery, control, and problem-solving attempts, whereas responses to threat are more typically aimed at escaping, avoiding, or seeking symptom relief.

Although a significant number of studies have focused on the primary appraisal process, more of the recent research has been directed at understanding what Lazarus refers to as "secondary appraisal." Stated simply, secondary appraisal refers to the internal process of asking and answering the question, "What can I do about this situation?" Actually, the two appraisal processes are highly interrelated. For example, high feelings of self-efficacy can lead to heightened perceptions of internal control and mastery, which in turn can produce an enhanced number and improved quality of active coping initiatives.

Coyne and Lazarus (1980) describe the role of secondary appraisal as follows:

> Essentially, secondary appraisal involves the evaluation of coping strategies with respect to their cost and probability of success. The determinants of secondary appraisal in a given stressful transaction are likely to include the person's previous experiences with such situations; generalized beliefs about self and environment; and the availability of resources, such as the

> person's morale and assessments of health/energy, problem-solving skills, social support, and material resources. . . .
>
> Secondary appraisal must involve balancing competing concerns as the person simultaneously or sequentially evaluates personal and social resources that can be mobilized, the adequacy of alternative coping strategies, and feedback from coping efforts. The choices are seldom clear-cut, and as the person's perspective shifts from one encounter to another, priorities determining coping may be radically altered. (p. 153)

The above is a jargon-laden way of saying that people (in this case managers) are constantly confronted with the task of evaluating the challenges and threats arising out of situations at work or at home. They must consciously or unconsciously appraise the importance and risk present in the situation and then assess their potential resources for responding effectively. The outcomes of this multiphased appraisal process have powerful implications for the coping efforts that follow. These efforts can be arbitrarily dichotomized as active (problem-solving, solution-seeking, and confrontational) or passive (avoiding, denying, distorting). The factors that influence the nature and outcomes of the appraisal process are the subject of much current stress research (Lazarus, DeLongis, Folkman, & Gruen, 1985) and are key elements of the findings we wish to share in this paper.

Stress, Learning, and Performance

Psychologists have long debated the question of whether (and in what way) the stress of a given experience enhances or debilitates performance and learning. Evidence has been offered to support both views (Jamal, 1984; Meglino, 1977). The most widely accepted conceptual model attempting to reconcile these seemingly discrepant findings is called "activation theory." It has its roots in the classic Yerkes-Dodson (1908) law of arousal and performance.

As applied to stress, the Yerkes-Dodson law would predict poor performance under conditions of very low stress because insufficient arousal would hinder productive activity. Poor performance would also

be expected under very high stress conditions where a disproportionate amount of energy must be directed at coping with the discomfort rather than at efforts to tackle the problem creating the stress. Optimal performance should be generated somewhere in the middle under conditions of moderate stress. The predicted performance curve resulting from the model thus takes on an inverted U-shape.

Although this model has much intuitive appeal, it is extremely difficult to test and even more difficult to put into practice. The major stumbling block lies in individual differences. How does one pinpoint the optimal level of stress that would be desirable for a given individual on a given type of stressor at a given point in time. The optimal level is almost certainly moderated by the nature of the stressor, the personality and experience of the person, and the context in which the stressor is experienced (for example, whether the person is already engaged in coping with other powerful stressors). Nevertheless, the model has significant support among a number of stress researchers (Ivancevich & Matteson, 1981; McLean, 1979; Moss, 1981).

Stress as Mediated by Predictability, Perceived Control, and Avoidance Learning

The name most closely associated with this work is Albert Bandura (1977a). Bandura speaks to the importance of feelings of self-efficacy and to expectations of personal control over a given situation. He then relates these internal feelings to the likelihood that avoidance behavior will emerge in a given stressful situation. Bandura's model discusses the impact of two powerful expectations: *outcome expectations* (the belief that a given behavior will lead to certain outcomes) and *efficacy expectations* (the belief that one is personally capable of doing what is required).

In Bandura's model, efficacy expectations play a critical role in determining how the person will attempt to cope. For example, a manager who feels incapable of responding effectively is much more likely to deny that the problem exists or to focus on coping with the symptoms. Feelings of self-efficacy and personal control are heavily influenced by the degree of success or failure one has experienced in the past. It is much easier to persuade a manager to approach a new problem

with confidence and action-oriented strategies if he or she has had a history of mastering difficult challenges and demands in other settings.

Similarly, Bandura (1977b) would argue that a history of avoidant behavior is likely to foster more of the same in the present and future. Defensive tendencies are difficult to modify since patterns of avoidance and denial tend to be self-fulfilling and self-reinforcing. Passive strategies prevent a manager from learning what is new and different about a situation, and fear of failure sets up a downward spiral of expectations that increases the likelihood that the person's worst fears will indeed come to pass.

Stress and Coping Through Time: Developmental Theories

A final model of stress and coping is derived primarily from longitudinal research. This model suggests that patterns of perceived stress and preferred coping style are heavily influenced by a person's developmental history and prior exposure to demands and challenges. Among those advocating the role of developmental factors are Howard and Bray (1988), Kegan (1982), Levinson (1978), and Vaillant (1977), who address the differential stresses presented by various transitions and evolving life stages. In essence the developmental perspective suggests that to truly understand how a person perceives and responds to the challenges and opportunities of life it is necessary to examine who that person is, what he or she has experienced in the past, and how he or she came to be that way. Perhaps most importantly, these theorists suggest that individuals need to engage in objective self-assessment if they intend to overcome any negative tendencies created by their biases, their preferred coping patterns, and their learned history of avoided situations.

Appendix B:
Dimension Definitions from the Stress-assessment Process

Job and Career Motivation

(1) Company value orientation—Identification with corporate values.
(2) Primacy of work—Degree to which work is primary source of life satisfaction.
(3) Inner work standards—Motivated to do a good job for its own sake.
(4) Need for advancement—Need to be promoted rapidly compared to peers.
(5) Realism of expectations—Degree to which aspirations are realistic.

Vulnerability and Resistance Factors

(1) Need for control—Need to have personal control over one's life and emotions.
(2) Agency—Perceived control over one's life and emotions.
(3) Self-esteem—Presence of a positive self-image, self-confidence, etc.
(4) Optimism—Maintaining a positive outlook relative to work and nonwork life.
(5) Flexibility—Demonstration of ability to modify coping strategies as appropriate.
(6) Tolerance of uncertainty—Ability to be comfortable in uncertain and changing situations.
(7) Self-objectivity—Ability to be objective about own strengths and weaknesses.

Active Coping Factors

(1) Dependency—Reliance on others to make decisions, take over, provide guidance, etc.
(2) Need for approval—Need for approval from boss, peers, friends, family, etc.

(3) Action-proneness—Willingness to confront stress problems with direct action.
(4) Action potential—Possession of skills, intellect, etc., to confront stressors.
(5) Awareness—Degree of awareness of anxieties, fears, problems, etc.
(6) Mastery—Degree of previous success in coping with stressful situations.
(7) Self-development—Responding to challenges with self-improvement efforts.
(8) Withdrawal—Likelihood of removing self from problems beyond one's control.

Intrapsychic Coping and Symptom Control

(1) Distortion—Reliance on immature defenses which distort reality of stressful conditions.
(2) Avoidance—Avoiding issues and problems, and choosing not to deal with stress.
(3) Escapism—Engaging in activities for purpose of escaping from stress.
(4) Symptom control—Confronting stress by attempting to reduce symptom levels.
(5) Physical resistance efforts—Attending to health with exercise, rest, nutrition, etc.

Psychological Health Status

(1) Happiness—Feelings of pleasure and contentment with life.
(2) Anxiety—Symptoms of tension, apprehension, shakiness, sweating, rapid pulse, etc.
(3) Depression—Feelings of hopelessness, loss of energy and motivation, self-blame, etc.
(4) Open hostility—Overtly hostile attitudes or behavior toward people or situations.
(5) Covert hostility—Suppressed feelings of anger that are seldom expressed.

Life Status

(1) Job satisfaction—Positive feelings about current work assignment and tasks.
(2) Career satisfaction—Positive feelings about current and past career experiences.
(3) Exit-proneness—Motivation to leave the corporation through termination or retirement.
(4) Marital satisfaction—Positive feelings and contentment with current marriage.
(5) Marital stability—Likelihood of remaining married to current spouse; steadiness.

Positive and Negative Stressor Dimensions

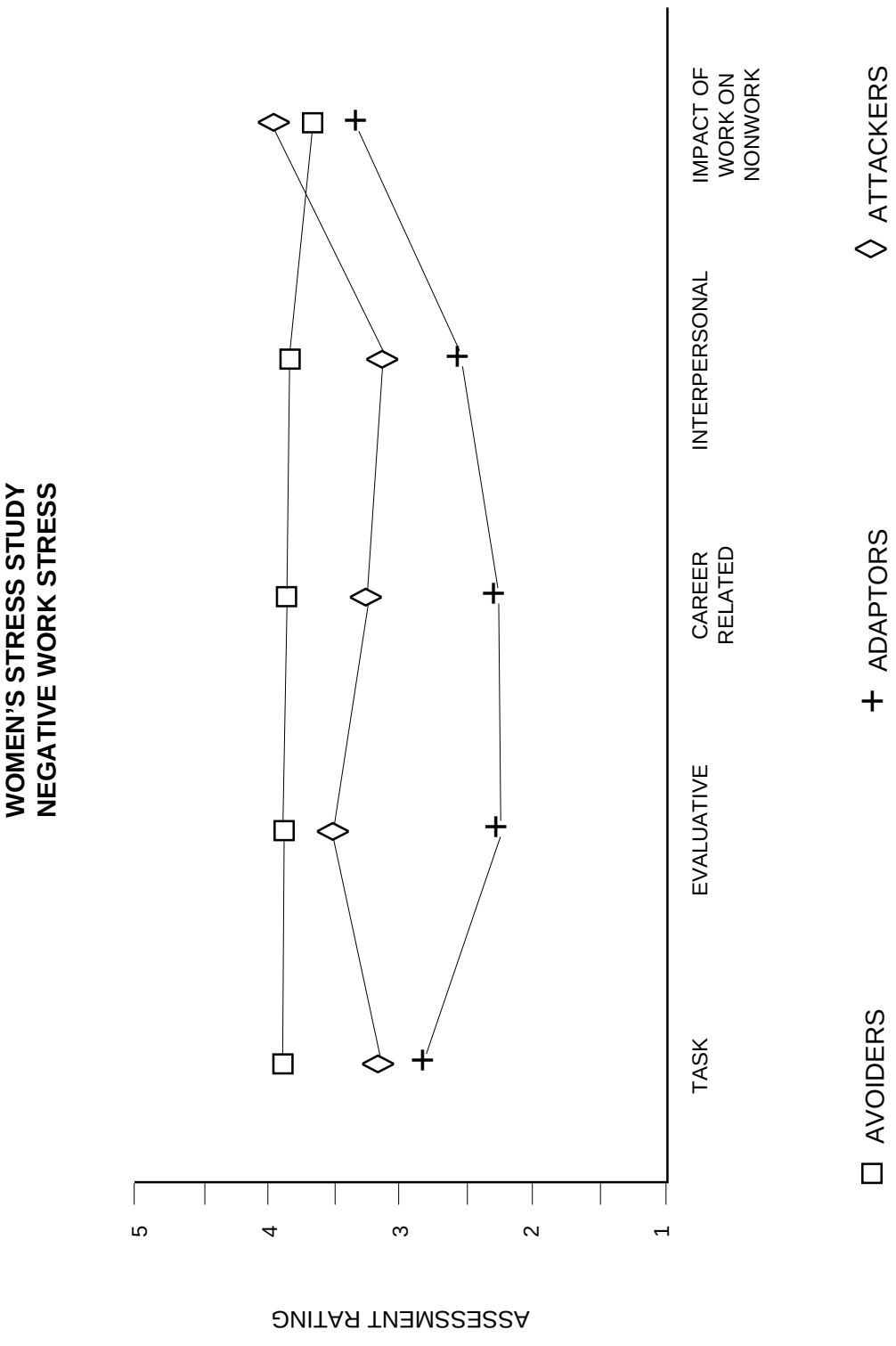
Work-related

(1) Task and role
(2) Evaluative
(3) Career-related
(4) Interpersonal relations at work
(5) Impact of work on nonwork
(6) Overall work stress

Nonwork

(1) Marital and spouse
(2) Family concerns (other than spouse)
(3) Financial
(4) Personal issues
(5) Interpersonal and social concerns
(6) Societal
(7) Impact of nonwork on work
(8) Overall nonwork stress

Appendix C:
Women's Stress Study Mean Profiles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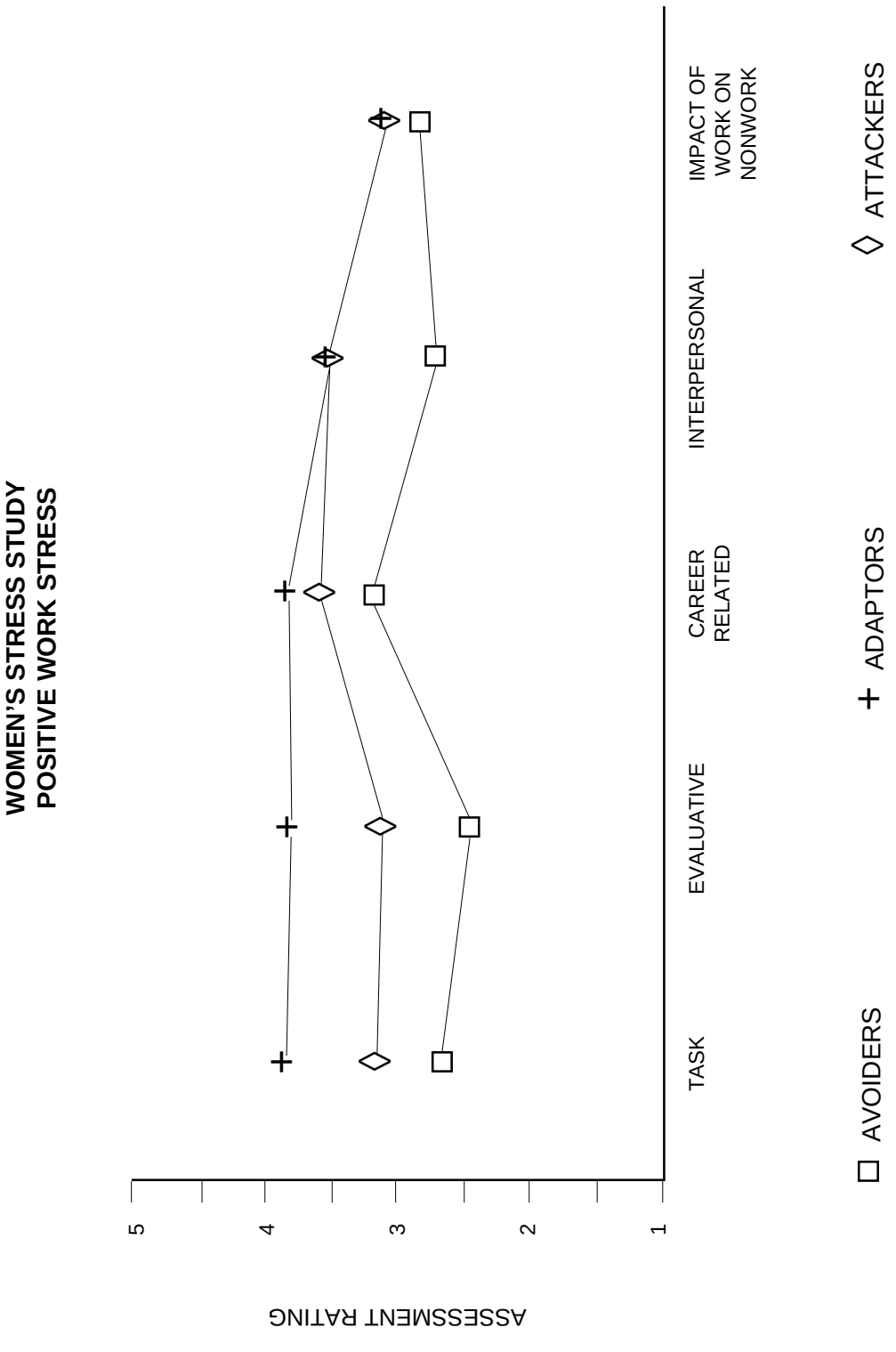
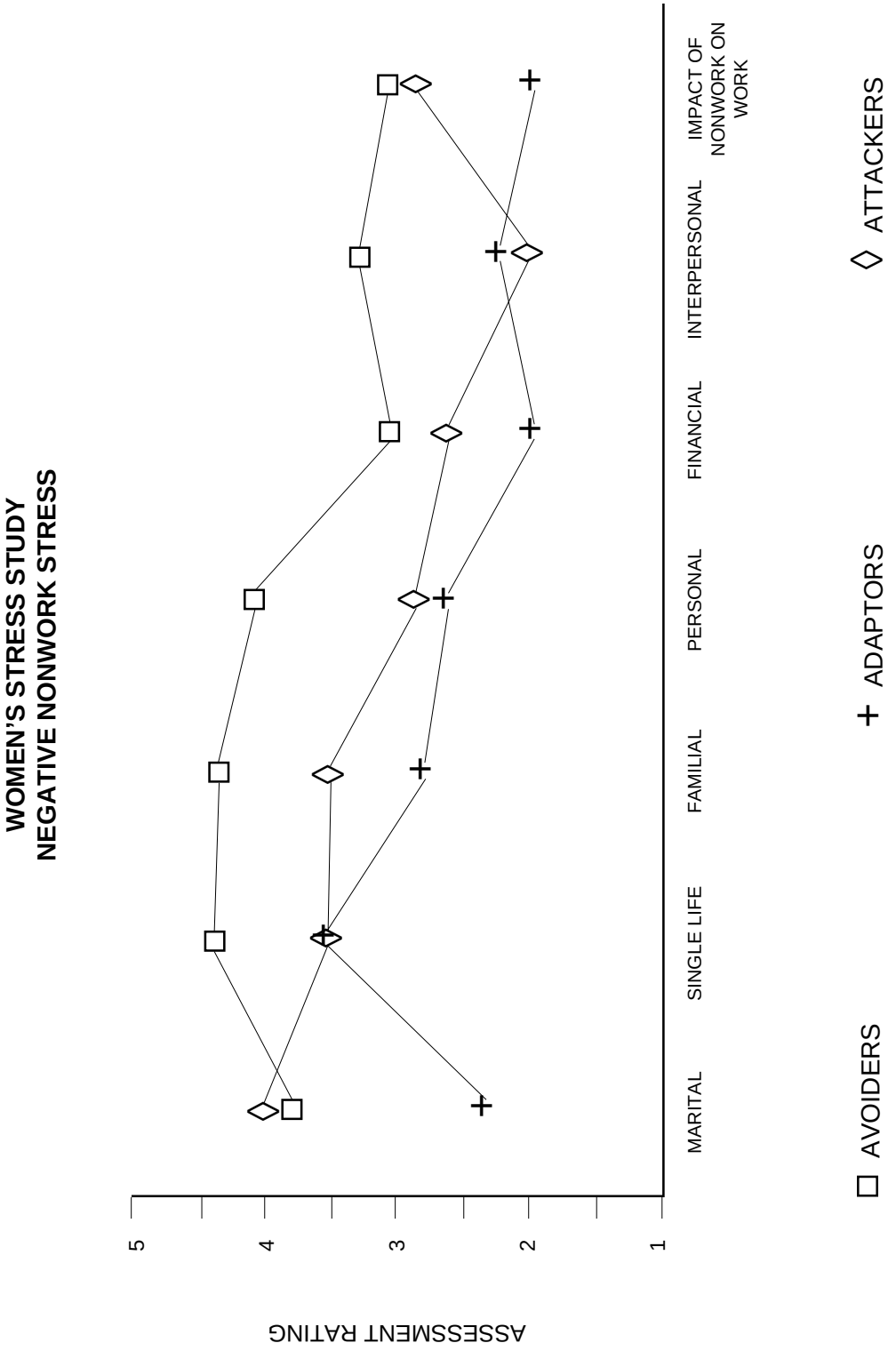
NEGATIVE WORK STRESS
ASSESSMENT RATING
5
4
3
2
1
TASK
EVALUATIVE
CAREER RELATED
INTERPERSONAL
IMPACT OF WORK ON NONWORK
AVOIDERS
ADAPTORS
ATTACKERS


WOMEN'S STRESS STUDY
POSITIVE WORK STRESS
ASSESSMENT RATING
5
4
3
2
1
TASK
EVALUATIVE
CAREER RELATED
INTERPERSONAL
IMPACT OF WORK ON NONWORK
AVOIDERS
ADAPTORS
ATTACKERS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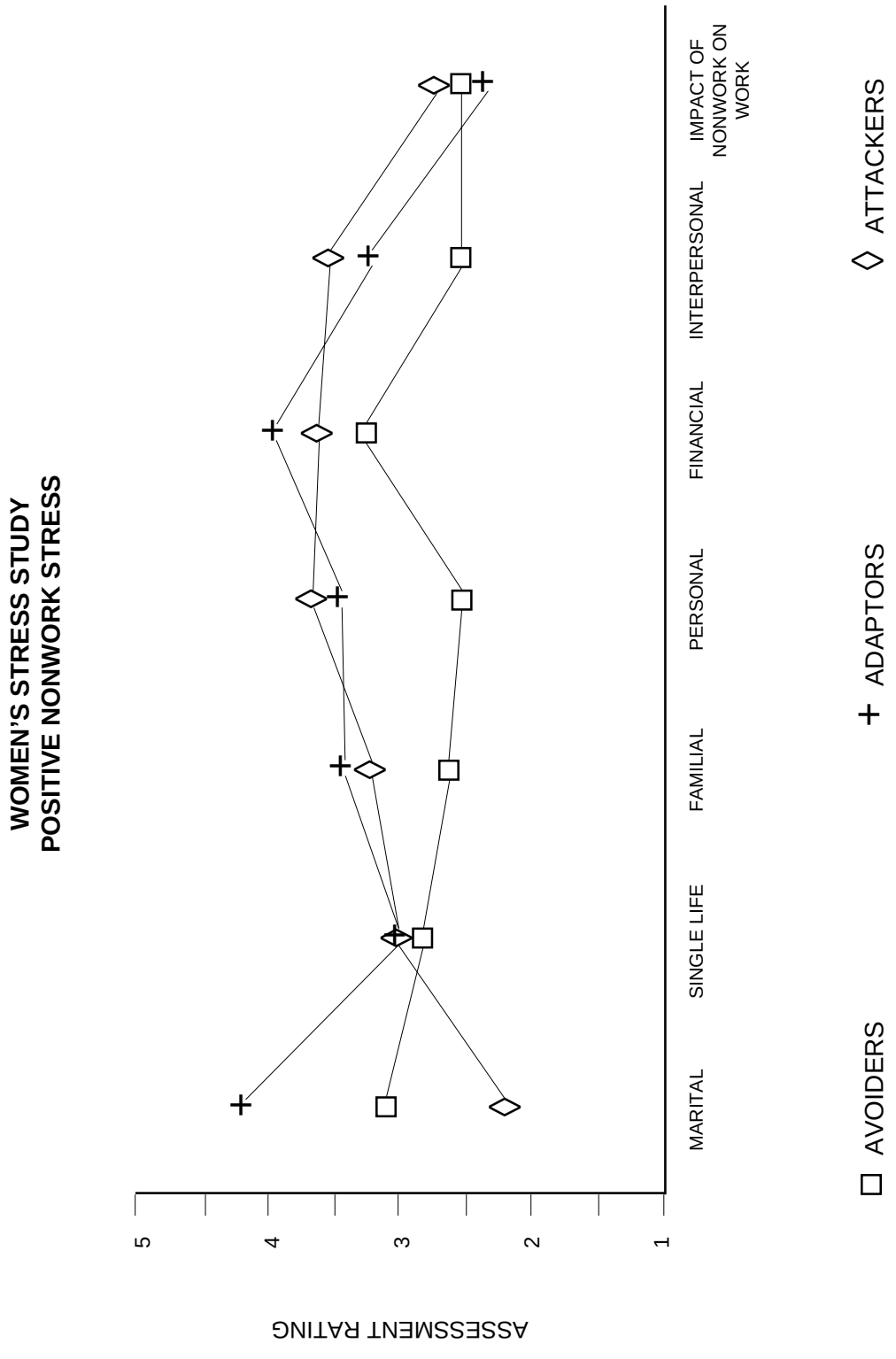
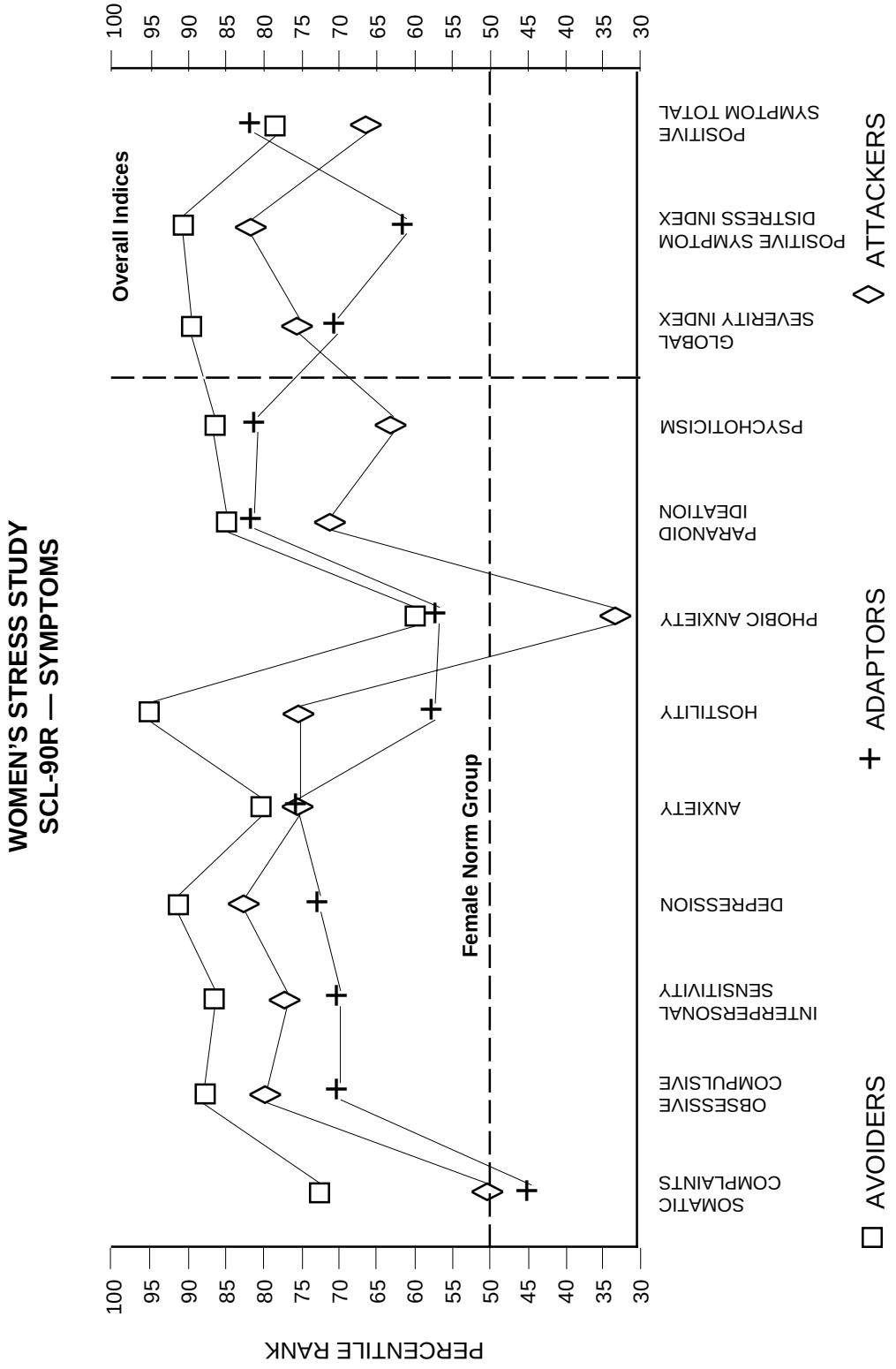
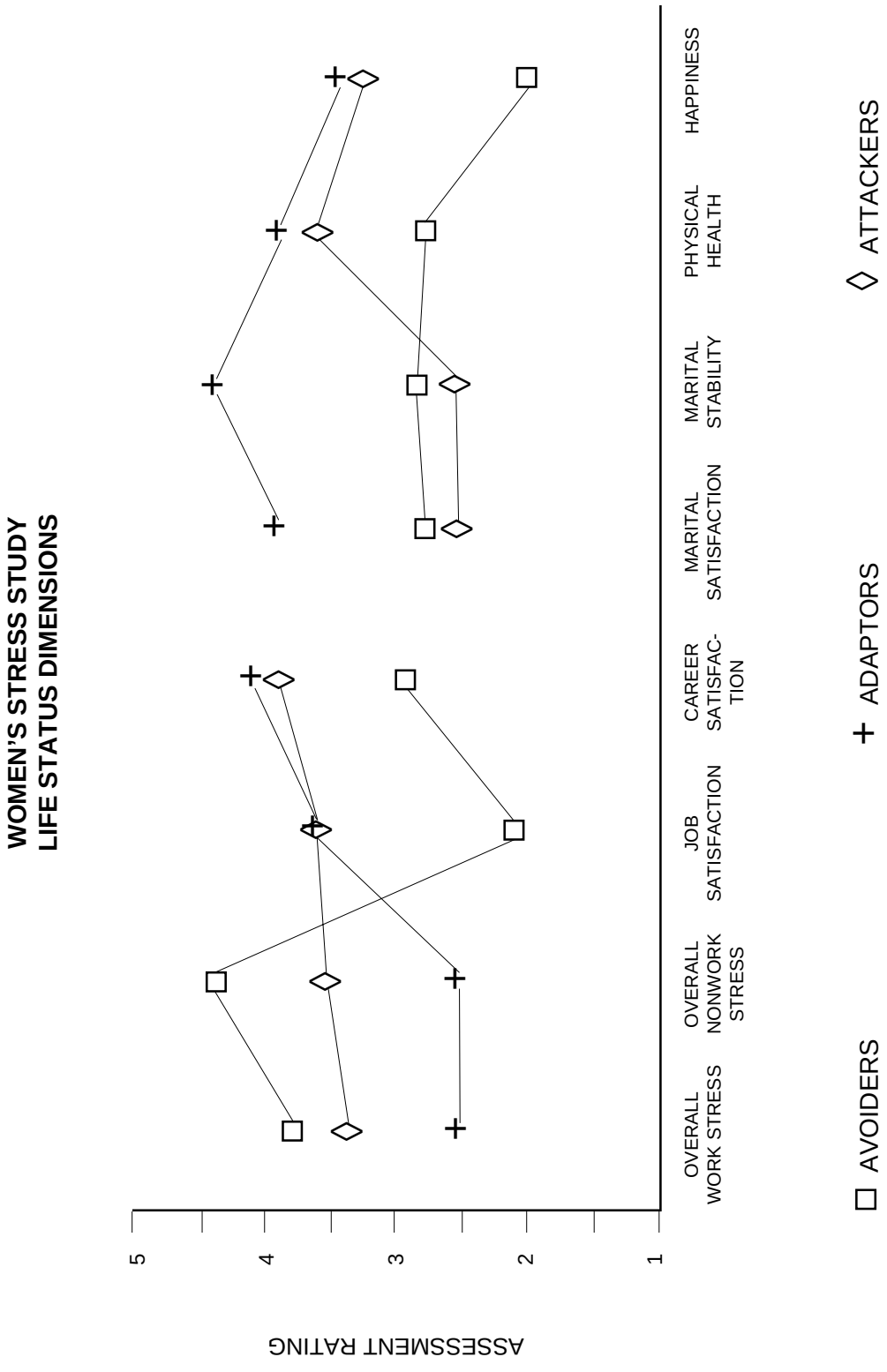
NEGATIVE NONWORK STRESS
ASSESSMENT RATING
5
4
3
2
1
MARITAL
SINGLE LIFE
FAMILIAL
PERSONAL
FINANCIAL
INTERPERSONAL
IMPACT OF NONWORK ON WORK
AVOIDERS
ADAPTORS
ATTACKERS

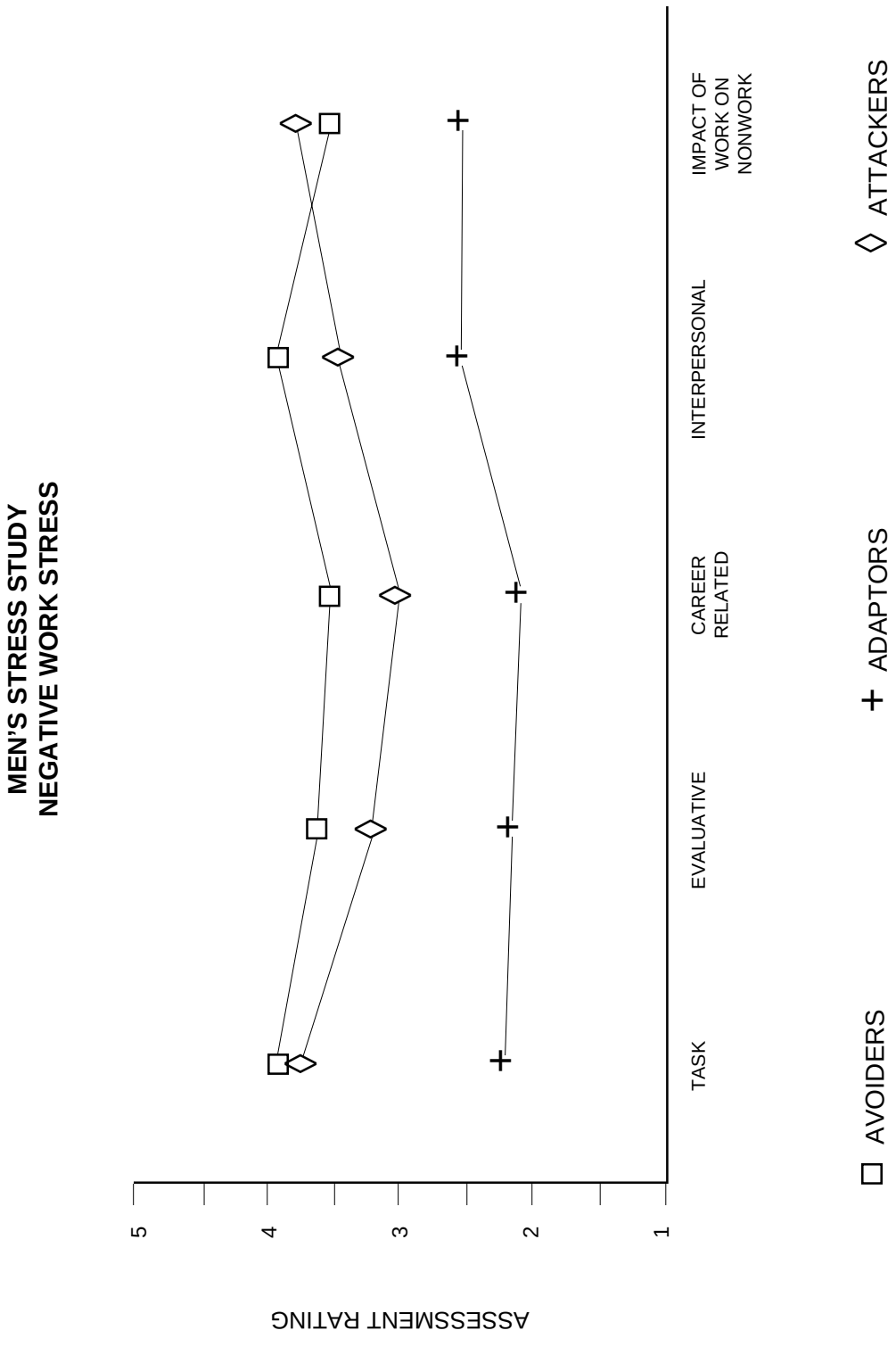

WOMEN'S STRESS STUDY
POSITIVE NONWORK STRESS
ASSESSMENT RATING
5
4
3
2
1
MARITAL
SINGLE LIFE
FAMILIAL
PERSONAL
FINANCIAL
INTERPERSONAL
IMPACT OF NONWORK ON WORK
AVOIDERS
ADAPTORS
ATTACKERS


WOMEN'S STRESS STUDY
SCL-90R — SYMPTOMS
PERCENTILE RANK
100
95
90
85
80
75
70
65
60
55
50
45
40
35
30
Overall Indices
Female Norm Group
SOMATIC COMPLAINTS
OBSESSIVE COMPULSIVE
INTERPERSONAL SENSITIVITY
DEPRESSION
ANXIETY
HOSTILITY
PHOBIC ANXIETY
PARANOID IDEATION
PSYCHOTICISM
GLOBAL SEVERITY INDEX
POSITIVE SYMPTOM DISTRESS INDEX
POSITIVE SYMPTOM TOTAL
□ AVOIDERS
+ ADAPTORS
◇ ATTACKERS

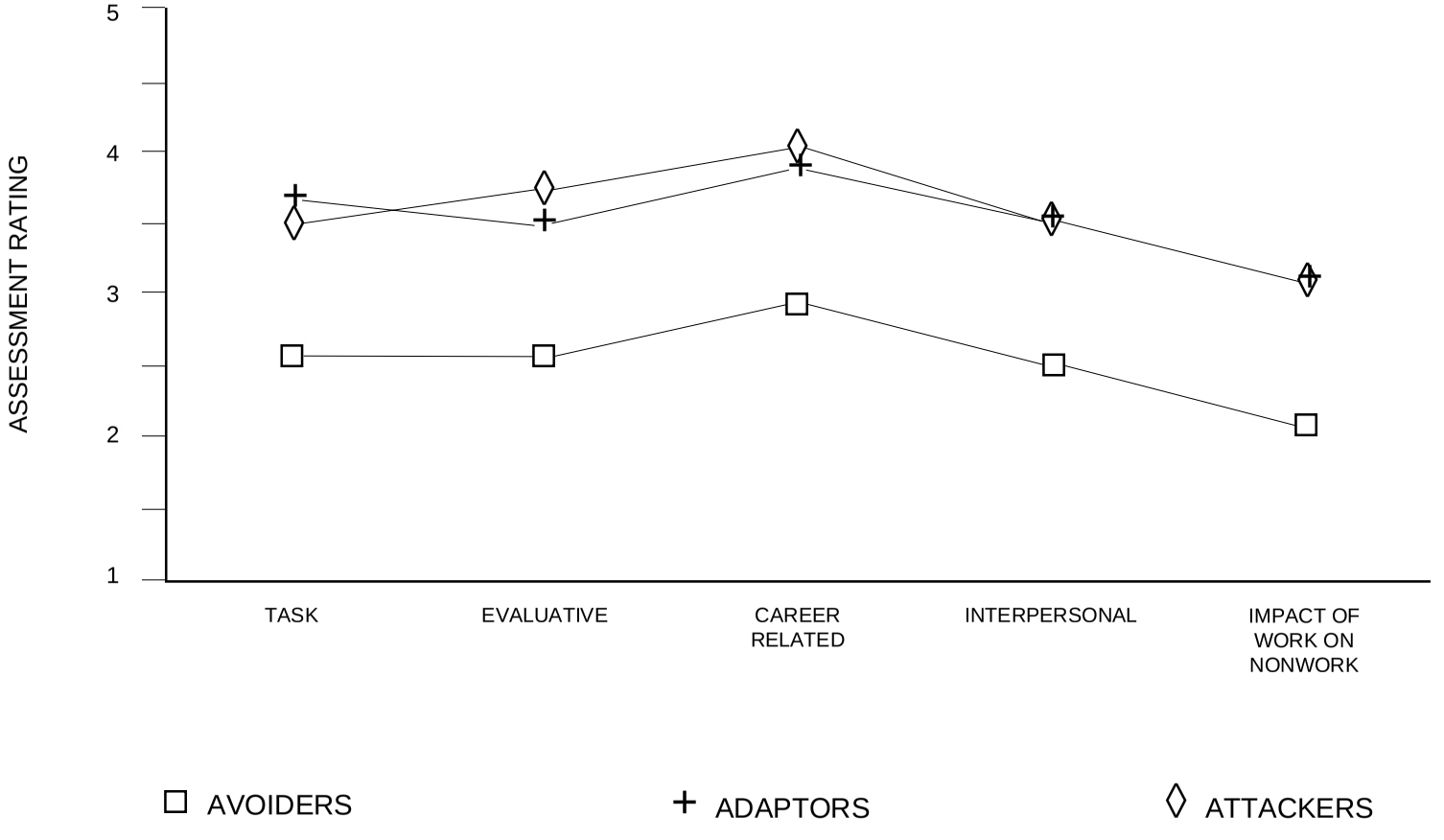
WOMEN'S STRESS STUDY
JOB AND CAREER MOTIVATION
ASSESSMENT RATING
5
4
3
2
1
PRIMACY OF WORK
INNER WORK STANDARDS
NEED FOR ADVANCEMENT
ORGANIZATIONAL COMMITMENT
REALISM OF CAREER EXPECTATIONS
AVOIDERS
ADAPTORS
ATTACKERS

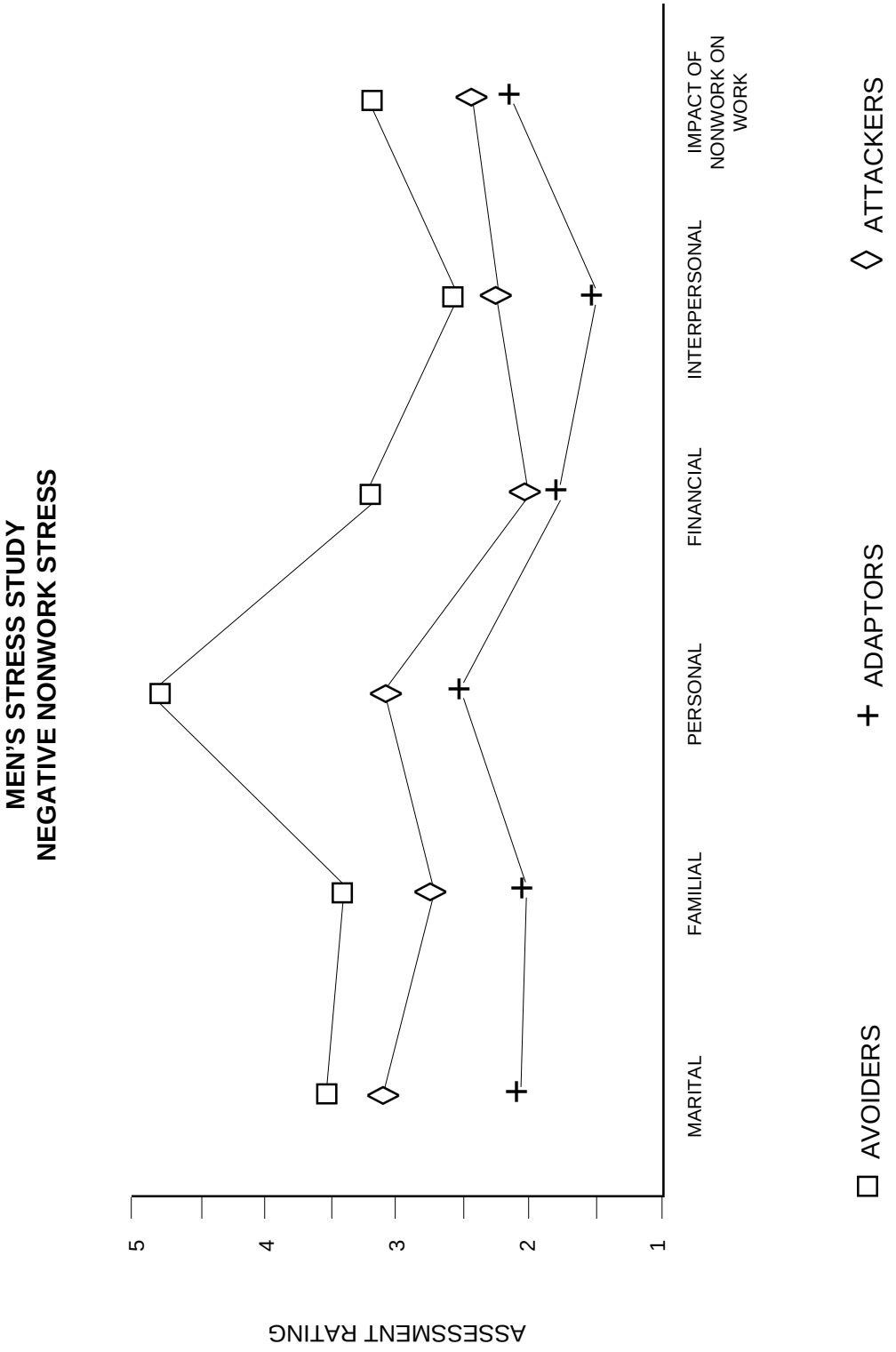

WOMEN'S STRESS STUDY
LIFE STATUS DIMENSIONS
ASSESSMENT RATING
5
4
3
2
1
OVERALL WORK STRESS
OVERALL NONWORK STRESS
JOB SATISFACTION
CAREER SATISFAC-TION
MARITAL SATISFACTION
MARITAL STABILITY
PHYSICAL HEALTH
HAPPINESS
AVOIDERS
ADAPTORS
ATTACKERS

Appendix D:
Men's Stress Study Mean Profiles


MEN'S STRESS STUDY
NEGATIVE WORK STRESS
ASSESSMENT RATING
5
4
3
2
1
TASK
EVALUATIVE
CAREER RELATED
INTERPERSONAL
IMPACT OF WORK ON NONWORK
AVOIDERS
ADAPTORS
ATTACKERS

MEN'S STRESS STUDY
POSITIVE WORK STRESS




MEN'S STRESS STUDY
NEGATIVE NONWORK STRESS
ASSESSMENT RATING
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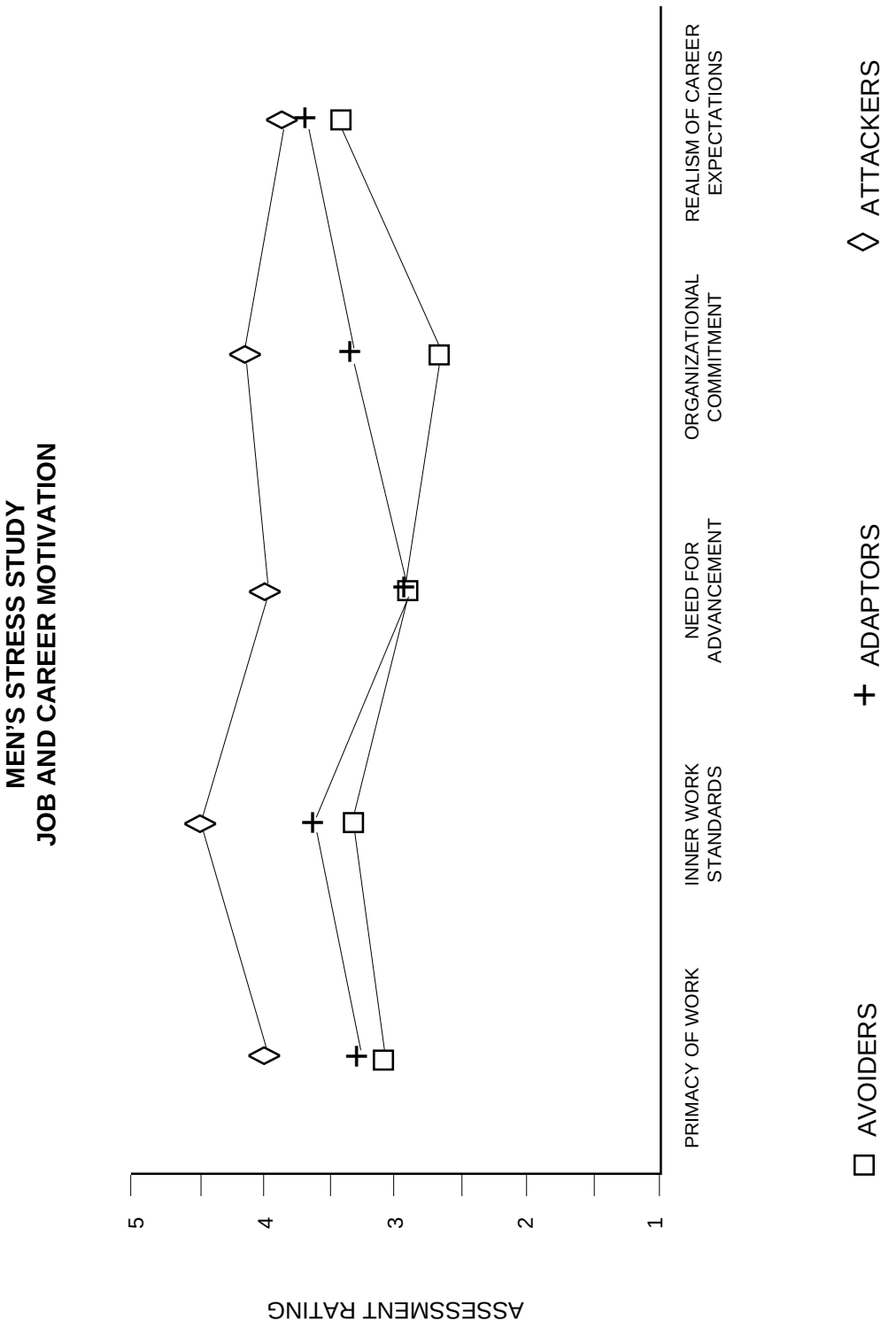
2
1
MARITAL
FAMILIAL
PERSONAL
FINANCIAL
INTERPERSONAL
IMPACT OF NONWORK ON WORK
AVOIDERS
ADAPTORS
ATTACKERS

MEN'S STRESS STUDY
POSITIVE NONWORK STRESS
ASSESSMENT RATING
5
4
3
2
1
MARITAL
FAMILIAL
PERSONAL
FINANCIAL
INTERPERSONAL
IMPACT OF NONWORK ON WORK
AVOIDERS
ADAPTORS
ATTACKERS

MEN'S STRESS STUDY
ACTIVE AND UNCONSCIOUS COPING
ASSESSMENT RATING
5
4
3
2
1
AVOIDANCE
DISTORTION
ESCAPISM
ACTION PRONENESS
ACTION POTENTIAL
MASTERY
AWARENESS
SELF DEVELOPMENT
DEPENDENCY
NEED FOR APPROVAL
AVOIDERS
ADAPTORS
ATTACKERS

MEN'S STRESS STUDY
VULNERABILITY AND RESISTANCE
ASSESSMENT RATING
5
4
3
2
1
SELF-ESTEEM
OPTIMISM
FLEXIBILITY
TOLERANCE OF UNCERTAINTY
NEED FOR CONTROL
AGENCY
SELF-OBJECTIVITY
AVOIDERS
ADAPTORS
ATTACKERS


MEN'S STRESS STUDY
JOB AND CAREER MOTIVATION
ASSESSMENT RATING
5
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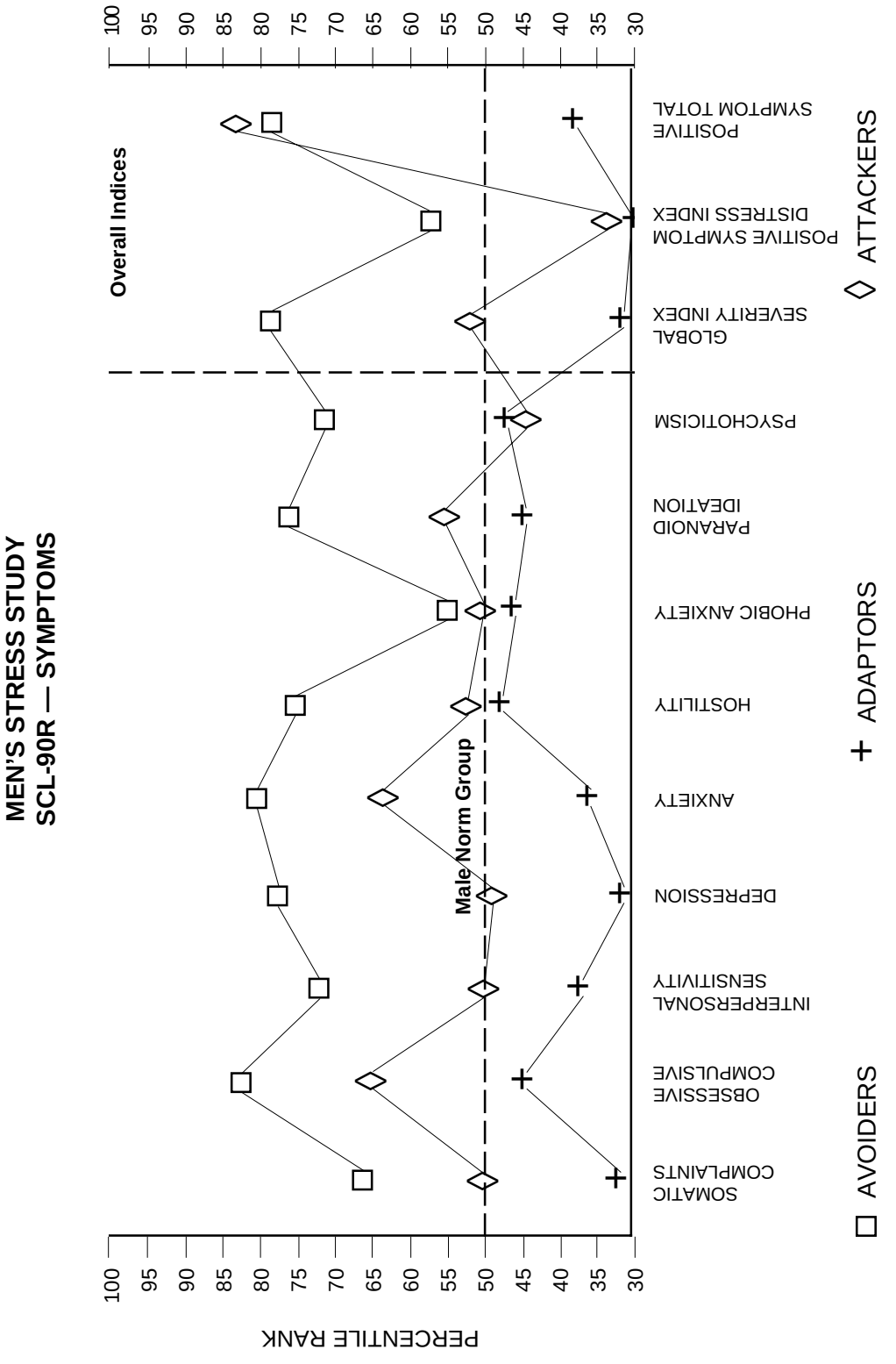
1
PRIMACY OF WORK
INNER WORK STANDARDS
NEED FOR ADVANCEMENT
ORGANIZATIONAL COMMITMENT
REALISM OF CAREER EXPECTATIONS
AVOIDERS
ADAPTORS
ATTACKERS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PSYCHOTICISM
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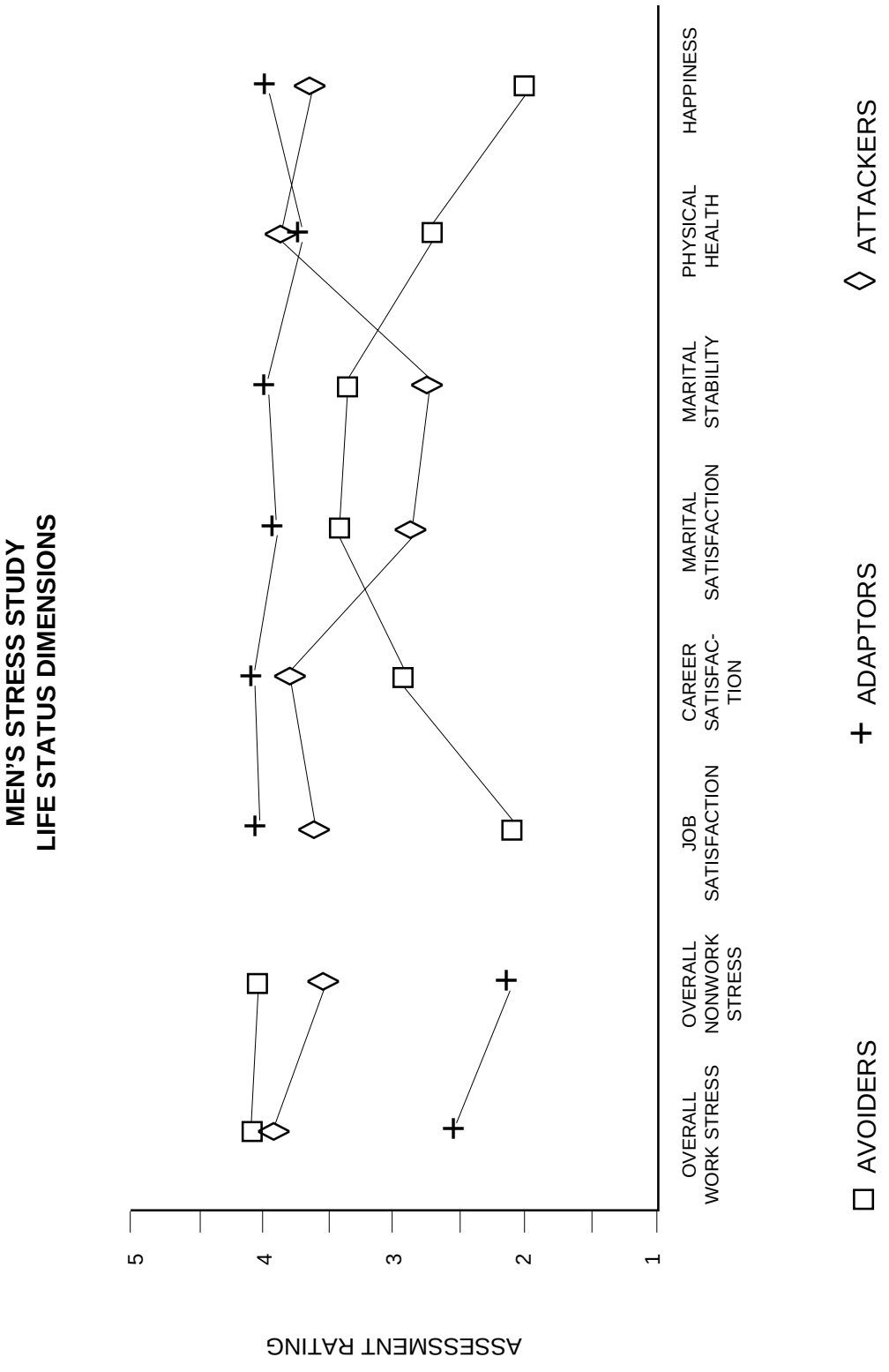
POSITIVE SYMPTOM DISTRESS INDEX
POSITIVE SYMPTOM TOTAL
AVOIDERS
ADAPTORS
ATTACKERS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OVERALL NONWORK STRESS
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CAREER SATISFAC-TION
MARITAL SATISFACTION
MARITAL STABILITY
PHYSICAL HEALTH
HAPPINESS
AVOIDERS
ADAPTORS
ATTACKERS