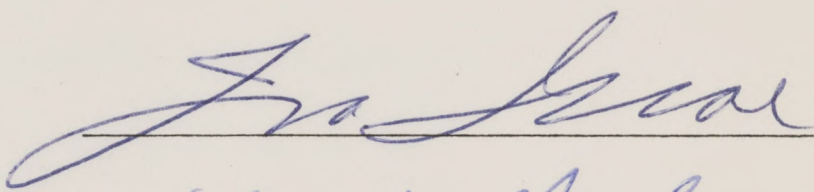
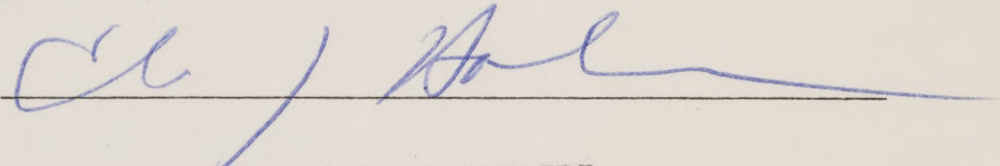


PERCEIVED LOCUS OF CONTROL AS AN EXPLANATORY MODEL FOR
PSYCHOLOGICAL DISTRESS RESULTANT FROM ENVIRONMENTAL
EVENTS: AN ELABORATION OF LAZARUS' APPROACH

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Michael David Rudd

1984

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To Loretta, who makes it all worthwhile

MICHAEL DAVID RUSSELL, B.A.

THESIS

Presented to the Faculty of the Graduate School of

The University of Texas at Austin

in Partial Fulfillment

of the Requirements

for the Degree of

MASTER OF ARTS

THE UNIVERSITY OF TEXAS AT AUSTIN

December 1984

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Michael David Rudd

The University of Texas at Austin
December, 1984

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Chapter 1

Towards a Working Definition of Stress

The overriding importance of stress in our daily lives is unquestionable. Nevertheless, efforts to study, understand and control stress have suffered from an unyielding obstacle----defining the term. What is stress? How do we define, measure, or quantify it? There are a vast number of definitions and approaches to stress. However, in an effort to organize the voluminous material at hand, we will look at stress from two perspectives: biological and cognitive-phenomenological.

1.1 The Biological Perspective

From a biological or physiological point of view, the work of Selye(1946) and Mason(1971) predominates. They regard stress as a "nonspecific response of the body to any demand"(Selye 1980,p.127). The response is nonspecific in the sense that stress increases the demand for generalized adaptive body functions to re-establish "normalcy". Selye(1980) noted that stress is an inescapable phenomenon and "complete freedom from stress is death"(p.128). In addition, he identified four basic variations of stress:

- eustress, pleasant or curative stress;
- distress, unpleasant or disease-producing stress;
- hyperstress, overstress;
- and hypostress, understress(Refer to Figure 1:1).

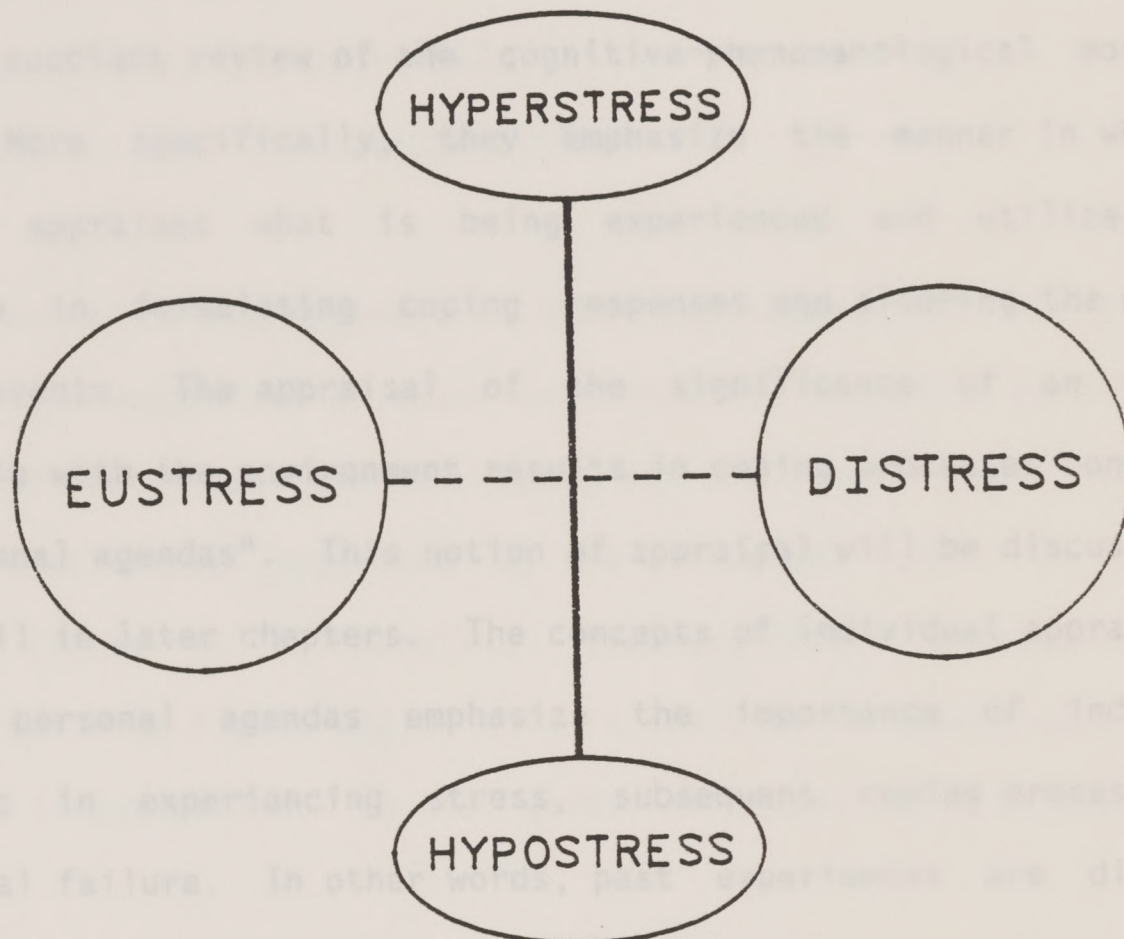
These concepts are not restricted to the physiological view of stress, but become useful when one takes a cognitive-phenomenological approach.

Engle(1953, p.22) provides a more complete definition of stress, including not only environmental demands but the internal milieu as well:

stress refers to all processes, whether originating in the external environment or within the person, which impose a demand or requirement upon the organism.

This definition approaches stress from a holistic perspective, emphasizing the importance of cognitive processes and, therefore, individual differences in experiencing and coping with stress. In contrast to the linear stimulus-response relationship described by Selye(1946), the cognitive-phenomenological position offers a more complex transactional approach.

Figure 1-1: The Four Basic Variations of Stress



1.2 A Cognitive-Phenomenological Approach

In an effort to disclose the shortcomings of the biological model proposed by Selye and others, Coyne and Lazarus(1980) have provided a succinct review of the cognitive-phenomenological model of stress. More specifically, they emphasize the manner in which an individual appraises what is being experienced and utilizes this information in formulating coping responses and altering the ongoing course of events. The appraisal of the significance of an ongoing relationship with the environment results in coping processes consistent with "personal agendas". This notion of appraisal will be discussed in more detail in later chapters. The concepts of individual appraisal of events and personal agendas emphasize the importance of individual differences in experiencing stress, subsequent coping processes and adaptational failure. In other words, past experiences are different for all people and, therefore, personal agendas or coping repertoires vary. Other important variables within this construct include: intrinsic motivation, creativity, flexibility, and learned helplessness. In addition to the original appraisal of the event, the effects of coping are appraised and reacted to as a "continuous flow of psychological, social and physiological processes and events"(p.145). In other words, stress is inherent in the continuous process of appraisal and reappraisal. It is simply the consequence of individual-environment interaction. The person at hand makes an effort to reduce or cope with this stress. The works of Lazarus and his colleagues

strongly support these suppositions. For a review, one can refer to the following investigations:

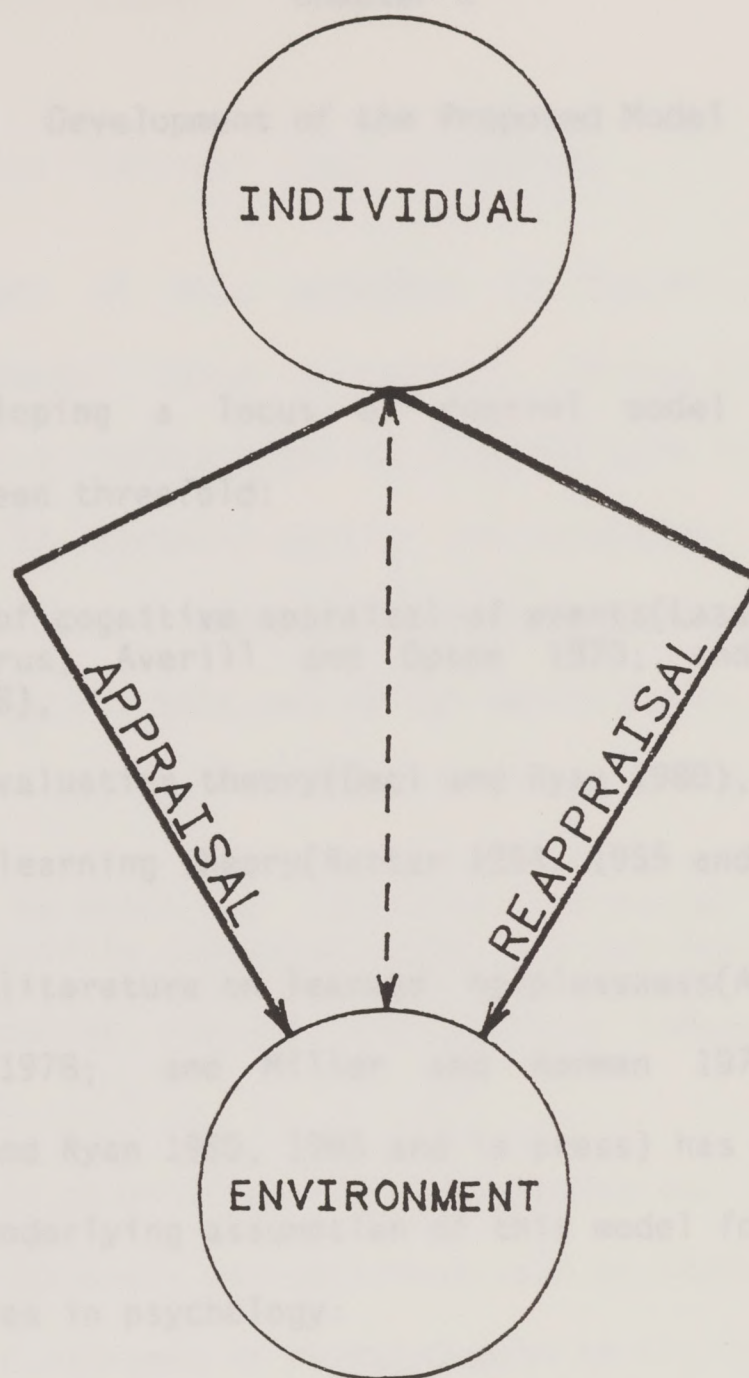
- Lazarus et al. 1962,
- Lazarus, Averill and Opton 1970,
- and Lazarus 1966, 1976, 1978a, 1978b.

To summarize the approach of Coyne and Lazarus, it is proposed that a stressful appraisal or experience involves extensive psychological mediation and reciprocal feedback loops; not the simple linear stimulus-response relationship suggested by the biological model. In essence, stress is viewed as a complex, transactional, process-oriented phenomenon(Refer to Figure 1:2). This is the view of stress adopted for the present investigation. In the words of Coyne and Lazarus(1980, p.145):

psychological stress is now viewed as a general rubric for somewhat different though related processes of the 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.

With reference to the four variations of stress recognized by Selye(1946), psychological stress can be more appropriately characterized as psychological distress.

Figure 1-2: A Transactional View of Person-Environment Interaction



Chapter 2

Development of the Proposed Model

2.1 Defining Internal-External Locus of Control

At the heart of this paradigm is Rotter's (1966) concept of internal and external locus of control. It has long been recognized that reinforcement or reward is an integral part in the learning and performance of certain skills and knowledge. However, the

In developing a locus of control model for stress, the influences have been threefold:

1. the notion of cognitive appraisal of events (Lazarus 1966 and 1968; Lazarus, Averill and Opton 1970; and Lazarus and Launier 1978),
2. cognitive evaluation theory (Deci and Ryan 1980),
3. and social learning theory (Rotter 1954, 1955 and 1960).

The degree to which the individual perceives that the outcome follows from, or is contingent upon, his own behavior or effort is called his locus of control. This concept is central to Rotter's theory of personality. The underlying assumption of this model follows that of most organismic theories in psychology:

that the nature of a living organism is to act on the environment in accordance with its capacities and, through this activity, to develop an increasingly elaborated and unified internal structure that represents the organism and its environment (Blasi 1976, in Deci and Ryan-in press).

In order to maintain structure and coherence, the basic infrastructure described is the perception that:

a reinforcement is not entirely contingent upon

of the model will be presented first; followed by the more detailed aspects and a general summary.

2.1 Defining Internal-External Locus of Control

At the heart of this paradigm is Rotter's(1966) notion of internal and external locus of control. It has long been recognized that reinforcement or reward plays an integral part in the acquisition and performance of certain skills and knowledge. However, what one person views as a reward may be perceived differently by another. Rotter has pointed out that one of the determinants of this phenomenon is:

the degree to which the individual perceives that the reward follows from, or is contingent upon, his own behavior or attributes versus the degree to which he feels the reward is controlled by forces outside of himself and may occur independently of his own actions(p.1).

As a result of this observation, Rotter hypothesized that the relative impact of a reinforcement was dependent upon an individual's perception of the reward as contingent or noncontingent on his or her own behavior or attributes. Ultimately, he derived the notion of internal and external control. Internal control has been defined as the perception that "the event is contingent upon one's behavior or relatively permanent characteristics"(p.1). In contrast, external control has been described as the perception that:

a reinforcement is not entirely contingent upon one's own

actions, but is the result of chance, fate, is under the control of powerful others, or is unpredictable because of the great complexity of the surrounding forces(p.1).

Implicit within this argument for the divergent effects of internal and external control is the theoretical construct known as social learning theory.

As a review, social learning theory(Rotter 1954, 1955 and 1960) states that a reinforcement strengthens an expectancy that a particular behavior or event will be followed by the reinforcement in the future. Rotter(1966) hypothesized that a perception of internal control over the reinforcement would increase an expectancy to a greater degree than the perception of external control. This is what he found. Rotter also predicted and found that individuals differ in the degree to which they attribute reinforcement to their own actions. Finally, he discovered that a positive or negative reinforcement will strengthen or weaken potential for the overt behavior to recur in the same or similar situations. This finding is somewhat intuitive and brings into focus the notion of "behavior generalization". In other words, it is entirely possible that an individual might apply a routinely successful coping strategy to a situation never before encountered, yet similar to ones previously experienced. For example, an individual might have a particular support network to rely on when having problems at home, but this network may be inappropriate or ineffective when the problem concerns work. Although home and work atmospheres differ markedly, they

are similar in that they both involve group processes. As a result, it is plausible to assume that an effort might be made to generalize a particular coping strategy from one situation to the other. This notion of behavior generalization is important to the theoretical posture of this investigation and will be referred to again in future chapters.

It should be noted that implicit within Rotter's work is the assumption that there are not only state or situational differences, but trait incongruencies in individual tendencies to attribute control to internal or external forces. Consequently, he developed the I-E(internal-external) scale to measure such dispositional characteristics. Naturally, his work was highly supportive of the scale. Subsequent findings have been quite inconsistent, neither confirming nor disputing his claims(for a review see Averill 1972). Factor analysis of Rotter's scale has not helped to answer the many questions raised concerning its general validity. Neither Mirels (1970) nor Abramowitz(1973) found clear and distinct internal-external factor structures in Rotter's scale. These findings are instrumental in establishing a receptive atmosphere for viewing locus of control as existing along a continuum rather than as two distinct and polarized constructs.

2.2 Fundamental Hypotheses

Rotter is not alone in his support for the predictions stated above. As a whole, this research stimulated the fundamental hypotheses of the proposed model. The basic infrastructure of this paradigm is dependent upon the following hypotheses:

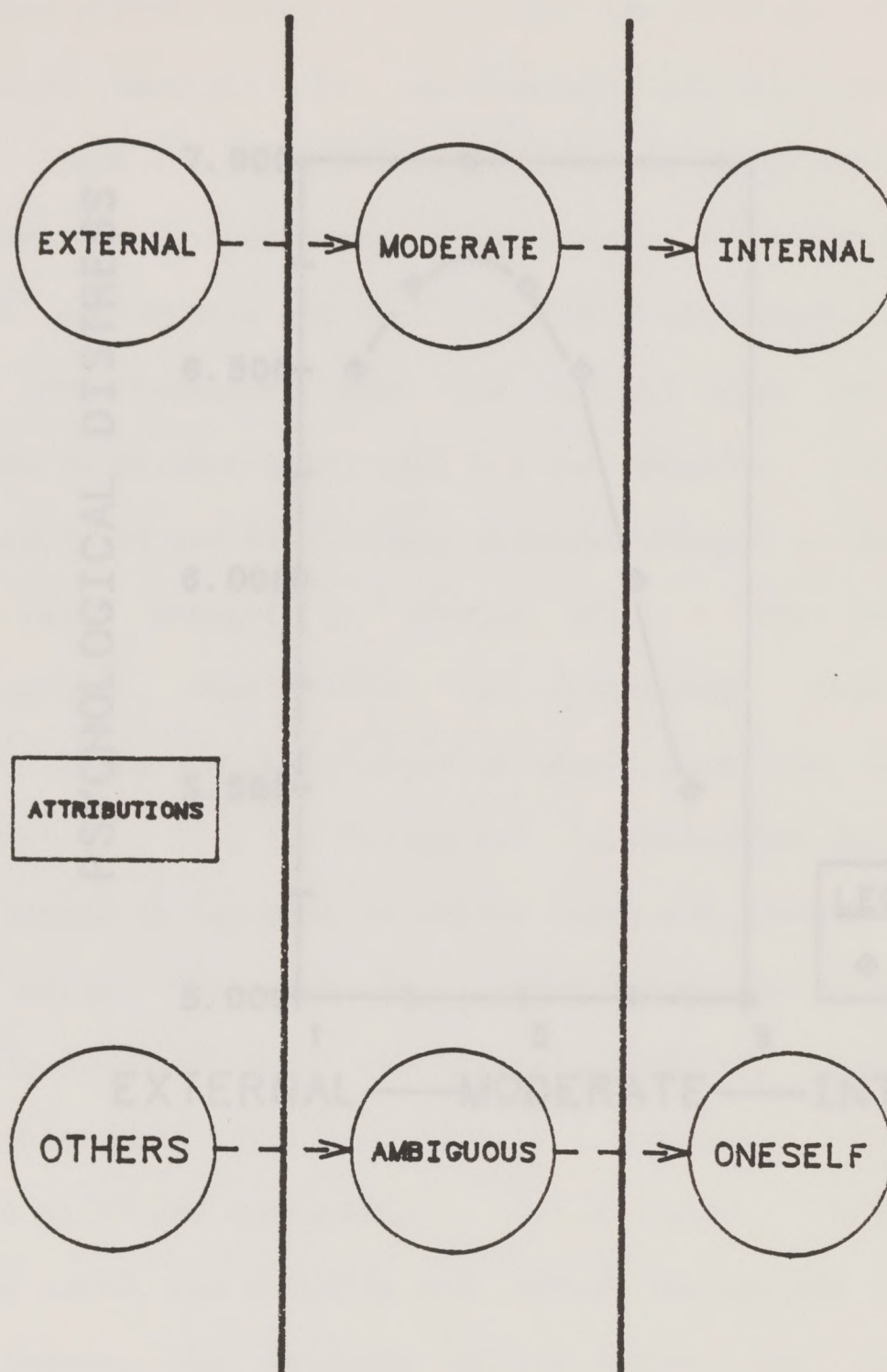
1. In addition to Rotter's original formulation of an internal and external locus of control, a moderate locus of control is proposed. In other words, perceived individual control can be viewed as existing along a continuum; ranging from external to moderate to internal(Refer to Figure 2:1).
2. The individual attributions made concerning responsibility for the outcome of the event in each case(external, moderate, internal) are: directed towards others(chance or fate), ambiguous, and oneself; respectively. In other words, the perception of external control is marked by attributing responsibility for the outcome of the event to chance, fate, or others. Likewise, the perception of internal control is characterized by attributing responsibility for the outcome of the event to oneself. In a similar fashion, moderate control is marked by an ambiguous attribution. It is important to note that situations vary greatly and, as a result, individual perceptions of control vary in accordance with situational cues.
3. Reduced levels of psychological distress serve as the reinforcement which strengthens future expectancies concerning a particular situation.
4. Future expectancies for the outcome in the same or similar situations are stronger in light of perceived internal control and are highly visible in the form of coping strategies and adaptive behavior.
5. Expectancies may generalize from a specific situation to a series of related or similar events. For example, an individual may expect a particular situation to be relatively stress-free since it is similar to one that has been encountered numerous times. However, the situation may be found to be exceedingly stressful as a result of some unexpected nuances. Such generalized expectancies account, in part, for the ambiguous attribution under perceived moderate locus of control.

6. There exist individual differences in general tendencies to perceive various events and outcomes as under external, internal, or moderate locus of control.
7. In general, psychological distress will be greatest under perceived external or moderate control over events. In contrast, psychological distress will be minimal under perceived internal control. Figure 2:2 more clearly illustrates the expected relationship.

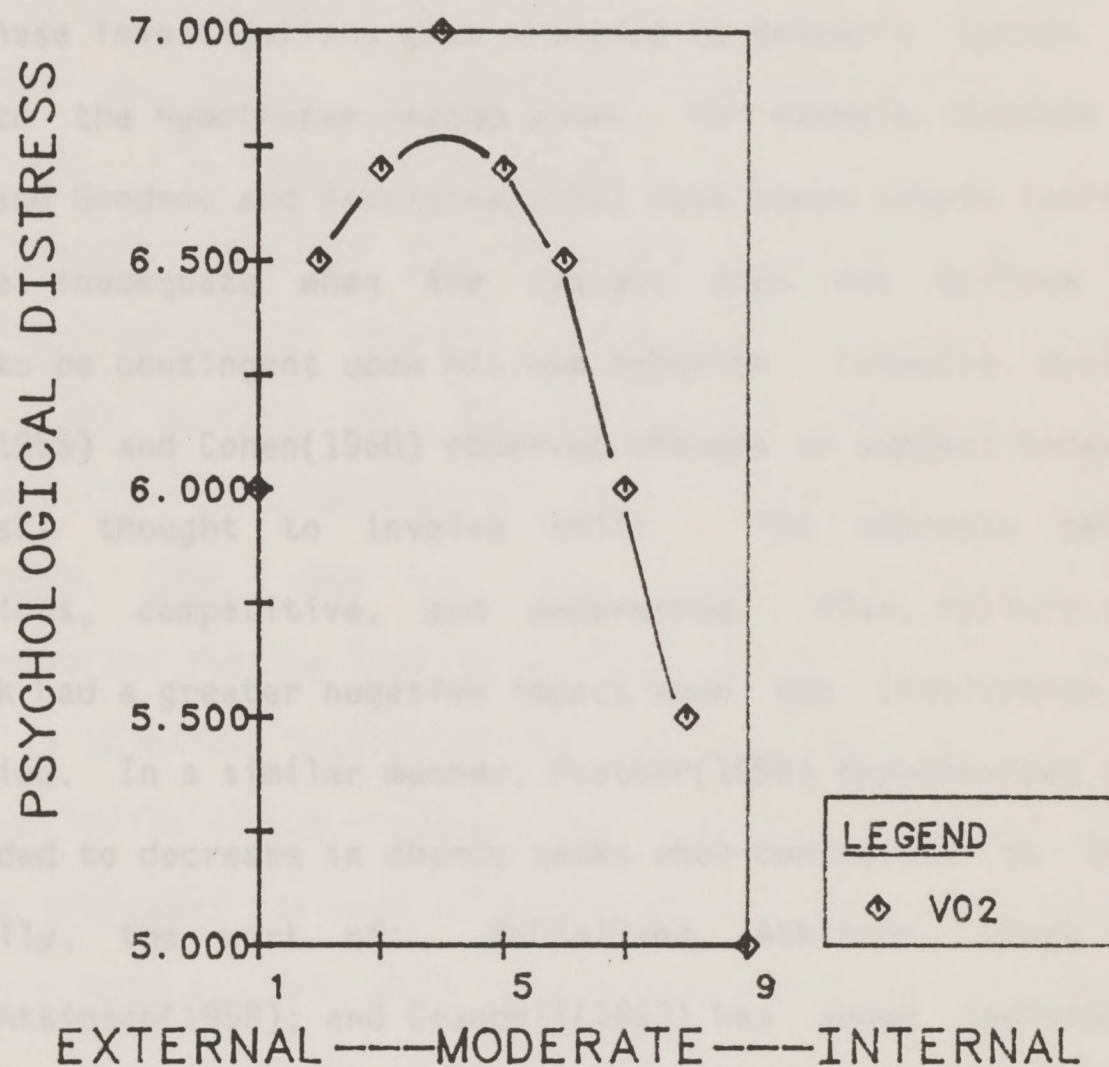
The more detailed and situation-specific hypotheses will follow the next section.

In the following pages, the term "outcome" is used in conjunction with the various levels of perceived control and their respective attributions. Outcome is used in reference to perceived levels of psychological distress. Since reduced levels of distress serve as the reinforcement which strengthens expectancies, perceived control over the reinforcement is of primary concern. Whether this implies control over the event itself is a moot point. Control over the reinforcement is manifested by appropriate coping strategies and adaptive behavior during the encounter. This logic follows that of Rotter's(1966) original work. For convenience, "perceived control" is utilized in reference to levels of psychological distress during and after the event; not the event itself. In summary, perceived control is only important with respect to levels of psychological distress experienced.

Figure 2-1: A Continuum of Individual Control



2.2.1 Support Figure 2-2: Expected Relationship Between Distress and Perceived Control



2.2.1 Supporting Research

Rotter's(1966) concept of internal and external control is not new. Related concepts and observations are quite prevalent in the literature. These investigations give credence to Rotter's notion and help legitimize the hypotheses stated above. For example, Goodnow and Postman(1955) and Goodnow and Pettigrew(1955) have shown simple learning theory to be inadequate when the subject does not believe the reinforcement to be contingent upon his own behavior. Likewise, Wyckoff and Sidowsky(1955) and Cohen(1960) observed changes in subject behavior concerning tasks thought to involve skill. The subjects became intensely serious, competitive, and determined. Also, failure on a particular task had a greater negative impact when the involvement of skill was implied. In a similar manner, Feather(1959) hypothesized that motivation tended to decrease in chance tasks when contrasted to skill tasks. Finally, the work of: McClelland, Atkinson, Clark and Lowell(1953); Atkinson(1958); and Crandell(1963) has shown individuals high in achievement motivation to have a strong and significant belief in their own skill and competence. As a result, these individuals believed they could, and actually did, affect the outcome of a particular event. In summary, the research points toward the existence of a mediating variable in the social learning process. It is possible that this variable is perceived control over an event and the outcome.

The proposed moderate level of control represents an

extrapolation from the work of Rotter and the many others previously reviewed. A moderate level of control is defined as the perception that the outcome of a situation can be dependent upon one's behavior or attributes, but is highly inconsistent depending on the circumstances. Consequently, the attribution of responsibility for the outcome is somewhat ambiguous. As stated previously, this hypothesis is a consequence of viewing perceived individual control as existing along a continuum(Refer to Figure 2:1). However, a primary influence in the development of this concept was the observation that expectancies generalized from a specific situation to a series of related or similar events(Rotter 1954, 1955, 1960 and James 1957). For example, an individual may have the feeling that he or she simply has "too many things to do". In an effort to effectively cope with the situation, one might develop and follow a very rigorous time schedule. Although this coping strategy addresses the need to devote certain amounts of time to specific tasks, it does not deal with concerns regarding general quality of performance. In other words, each task may be completed but general quality of performance will be at a minimum. It would probably be necessary to reduce the number of commitments in order to enhance the general quality of performance. The situations described are very similar yet require very different coping strategies. In summary, it should be apparent that an effort to generalize a specific coping strategy to a series of related events could prove both inadequate and ineffective. It is hypothesized that such unsuccessful generalizations result in frustration, confusion and, ultimately, support for an

ambiguous attribution of responsibility for the outcome of the event. Furthermore, it is proposed that such inadequate generalizations result in relatively high levels of psychological distress. The proposed attributions made in each case of perceived control are simply implicit with the definitions. Finally, it should be noted that this notion of a moderate level of control and, therefore, an ambiguous attribution is very similar to Sells(1970) definition of general stress. He believed stress to be the result of an individual being forced to respond when he had no adequate response available. Similarly, moderate control can involve unsuccessful generalizations from previous experiences.

The hypothesis that expectancies formed in the light of perceived internal control are substantially stronger than under other conditions is supported quite well(Phares 1957; James and Rotter 1958; Rotter, Liverant and Crowne 1961; Holden and Rotter 1962; and Blackman 1962). The assumption that such expectancies should be visible via coping strategies and adaptive behavior is also an extrapolation. However, this proposal is indirectly supported by the work of Phares(1962). He concluded that:

subjects who feel they have control of the situation are likely to exhibit perceptual behavior that will better enable them to cope with potentially threatening situations than subjects who feel chance or other noncontrollable forces determine whether or not their behavior will be successful(p.145).

The postulate that there exists dispositional qualities in

individuals with respect to internal and external attributions of control is simply the result of Rotter's(1966) development and validation of the I-E scale. The idea that psychological distress is least when perceived control is internal is well supported(Baum 1980 and Johnson and Sarason 1975). Similarly, the belief that distress is relatively high under a moderate or external locus of control is simply an extrapolation from this work. In summary, these hypotheses not only serve as a starting point for future research but stimulate situation-specific hypotheses as well(i.e. with respect to the three levels of proposed control). In addition, the relative influence of a number of variables should be questioned. Such variables include: intrinsic motivation, creativity, flexibility, learned helplessness, and recall ability. However, it is first necessary to outline the general model being proposed and its theoretical ancestors.

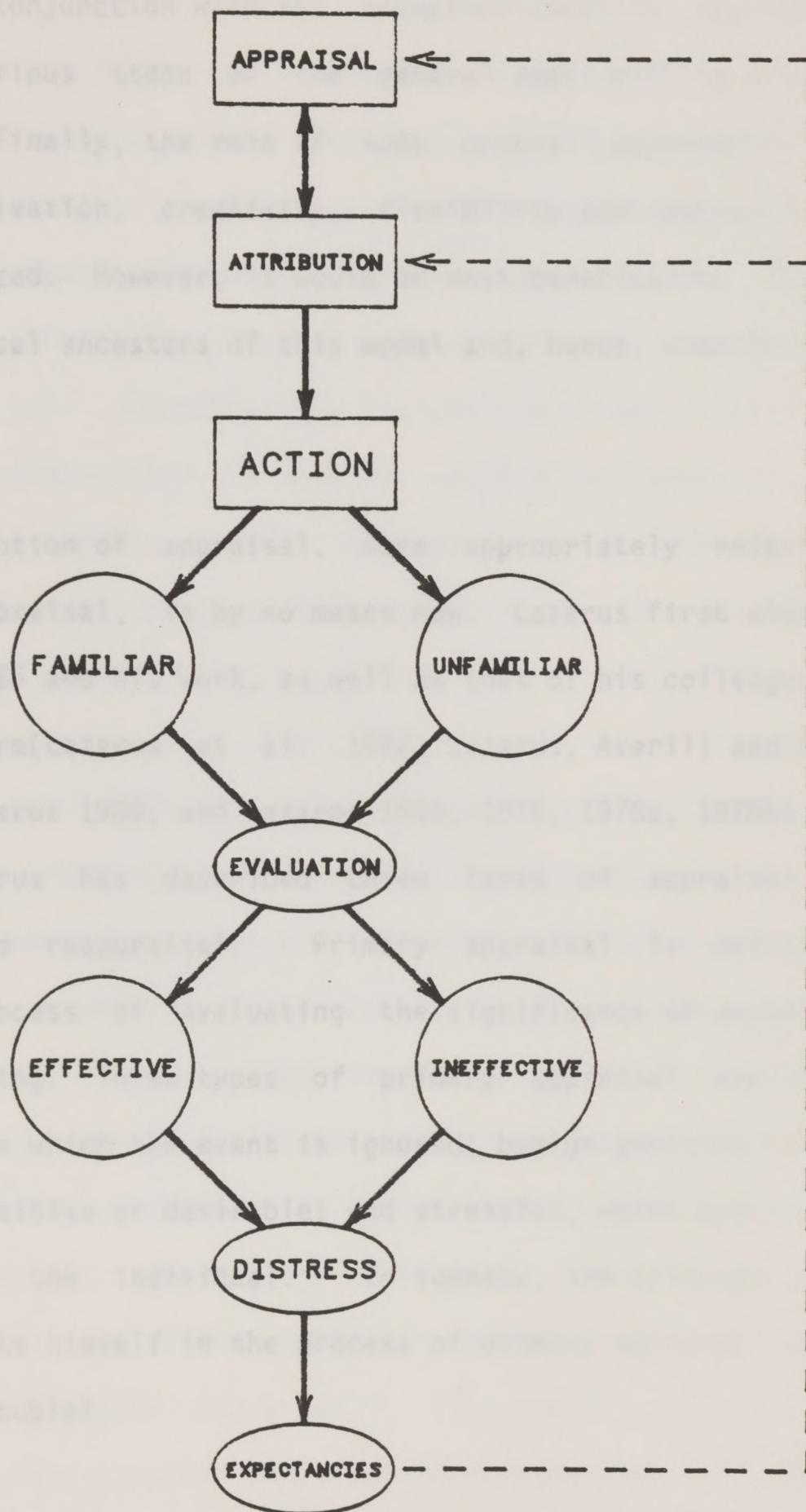
2.3 Piecing Together the Model: Theoretical Ancestry and Supporting Research

In general, it is believed that the following process is indicative of stressful events; regardless of perceived locus of control:

1. the appraisal of an event or situation as stressful,
2. attribution of responsibility for the outcome,
3. action on the part of the individual involved
4. and the strengthening or weakening of future expectancies(Refer to Figure 2:3).

With respect to figure 2:3, a few terms should be clarified before any further discussion. The notion of attribution has been discussed previously. Actions can be direct or indirect. Direct actions involve coping strategies and adaptive behavior. Indirect actions include such cognitive processes as rationalization and intellectualization. In addition, actions can be familiar or unfamiliar depending upon the situation. Familiar implies the specific situation has been encountered before and individual expectancies are adequate to take action. It is proposed that during an unfamiliar encounter an effort may be made to generalize or adapt familiar actions, or expectancies, to the new situation. The effectiveness of the action is evaluated by the individual involved. Distress is reduced if a specific action is effective. In contrast, distress remains unchanged or is enhanced if an action is ineffective. Finally, it is postulated that if stress is reduced, expectancies are strengthened and vice versa. Effectiveness of the action is evaluated by the individual involved. It is important to note that the process from the point at which an action has been taken is more or less descriptive. Once an action has been taken, it will be evaluated in terms of its effectiveness, stress will be experienced, and expectancies will be formulated. These expectancies will eventually "feedback" to affect future appraisals and, therefore, actions. This notion of a feedback influence is similar to Lazarus' concept of reappraisal. In summary, a stressful encounter can be represented as a continual process of appraisal, attribution, action, distress, the formulation of expectancies, and reappraisal.

Figure 2-3: Representation of a Stressful Encounter



There is substantial support for this proposal and it will be presented in conjunction with the situation-specific hypotheses. In addition, various steps of the general model will be discussed more thoroughly. Finally, the role of some crucial personality variables such as motivation, creativity, flexibility and learned helplessness will be analyzed. However, it would be most beneficial to first review the theoretical ancestors of this model and, hence, clarify its various components.

The notion of appraisal, more appropriately referred to as cognitive appraisal, is by no means new. Lazarus first elucidated the concept in 1966 and his work, as well as that of his colleagues, abounds with the term (Lazarus et al. 1962; Lazarus, Averill and Opton 1970; Coyne and Lazarus 1980; and Lazarus 1966, 1976, 1978a, 1978b). In more detail, Lazarus has described three forms of appraisal: primary, secondary and reappraisal. Primary appraisal is defined as the cognitive process of evaluating the significance of an encounter for one's well-being. Three types of primary appraisal are identified: irrelevant, in which the event is ignored; benign positive, in which the outcome is positive or desirable; and stressful, which poses a threat or challenge to the individual. In summary, the principal question an individual asks himself in the process of primary appraisal is: Am I okay or in trouble?

In contrast to primary appraisal, secondary appraisal describes

ongoing judgments concerning coping resources, available options, and constraints on possible avenues of response. In addition, it is believed that the individual evaluates various coping strategies with respect to their costs and probability of success. Quite simply, the individual asks himself: What can I do about this situation? Finally, Lazarus describes reappraisal as the constant changes in individual judgments concerning the event. These changes are the result of considering new information or insight due to the fluctuating person-environment relationship. In essence, reappraisal serves as a feedback loop to the ongoing process of appraisal. In summary, Lazarus has proposed a continual process of appraisal-reappraisal during a stressful encounter. (deCharms 1960; Deci and Ryan 1980; Deci 1973; Lepper and Greene 1975; Kruglanski, Friedman, and Zeevi 1971; Asch 1952, and McGraw)

Lazarus' idea of appraisal-reappraisal is not being disputed here. Rather, it is eagerly accepted. His argument is well supported by the aforementioned research. However, I do believe his explanation neglects some of the vital components of the process between the initial step of appraisal and subsequent reappraisal (Refer to Figure 2:3). More specifically, I have proposed the idea of attribution of responsibility for the outcome and emphasized the relative importance of expectancies and social learning theory in this network. In summary, I believe Lazarus' conception falls short in explaining the cognitive and overt processes of a stressful encounter. The notion of attribution and, subsequently, the proposed levels of perceived control are the result of reviewing the work of Deci and Ryan (1980, 1983 and in press) in conjunction with that of Rotter (1966).

Deci and Ryan(1980, 1983 and in press) are primarily concerned with the effects of environmental events on intrinsic motivation. They have coined the phrase "cognitive evaluation theory" to describe their approach. In general, cognitive evaluation theory emphasizes that effects of environmental events depend on the manner in which those events are experienced and evaluated by the person. They have identified three categories of environmental events: informational, controlling, and noncontingent. Informational events provide the individual with a wide range of choices and possible actions. In addition, these events are characterized by high motivation, enhanced creativity, great flexibility and smooth recall from previous experiences(deCharms 1980; Deci and Ryan 1980; Deci 1971; Lepper and Greene 1975; Kruglanski, Friedman and Zeevi 1971; Amabile 1982; and McGraw and McCullers 1979). In contrast, noncontingent events are marked by amotivation, helplessness, a lack of creativity and flexibility, and relative inability to recall prior experiences. Finally, in controlling events, individual patterns of behavior are dependent on implicit or explicit contingencies and are differentiated by decreases in motivation (Ryan, Mims and Koestner 1983; Harackiewicz 1979; Ryan 1982; Pittman, Davey, Alafat, Wetherill and Kramer 1980; and Haddad 1980).

In accordance with the work of Rotter(1966), Deci and Ryan have postulated that informational and controlling events are characterized by an internal locus of control. In contrast, noncontingent events

maintain an external locus of control. I am in agreement with Deci and Ryan that there exists three categories of environmental events. However, I am proposing that a moderate locus of control would be more appropriate for controlling events than an internal locus of control. Consequently, under stressful appraisal, there would exist three types of environmental events:

1. those conducive to perceived external control,
2. those favoring perceived internal control,
3. and those promoting a moderate level of perceived control.

It should be noted at this time that, outside of the event itself, there are without question certain personality traits which influence the perceived level of control.

Deci and Ryan's notion that behavior during controlling events is dependent on implicit or explicit contingencies agrees with my concept of moderate control. During controlling events an individual feels pressured to think, feel, or behave in a specific manner. I have defined moderate control as the perception that the outcome of a situation can be dependent upon one's behavior or attributes, but is highly inconsistent depending on the circumstances. Hence, the ambiguous attribution. This follows quite well with the assumption that one feels pressured to think, feel, or behave in certain ways, but is still somewhat independent in his actions---an ambiguous situation. In summary, I propose that during a stressful appraisal one of three

possible situations can occur; characterized by either external, internal or a moderate level of perceived control. Furthermore, the appropriate attributions are others, oneself, and ambiguous; respectively. Therefore, it should be clear that I disagree with Deci and Ryan on one basic point---controlling events are marked by a perceived moderate level of control and an ambiguous attribution, not internal control. The general model proposed earlier should now be more clear. Situation-specific hypotheses will follow in the next section so as to further clarify the model.

Deci and Ryan(1980, 1983 and in press) have also described three personality orientations. They emphasize individual differences in tendencies to perceive various events as either informational, controlling, or noncontingent. As is evidenced by earlier reference to motivation, creativity, helplessness, and flexibility; such personality characteristics obviously play a crucial role in determining individual perception of various events. Nevertheless, the purpose of this paper is simply to present the proposed model and validate its fundamental claims. At present, possible personality orientations will only be alluded to in a superficial manner. It is necessary to first lay the theoretical foundation before investigating the more detailed aspects of the model. Future research hold promise for a more detailed investigation of this fascinating area.

2.4 Situation-Specific Hypotheses

As a result of the general stress model presented in the preceding section, there are a number of situation-specific hypotheses to be reviewed. Although the underlying process is proposed to be the same regardless of perceived level of control, the precise situations can be quite different. More specifically, the actions taken in each case and the effectiveness or ineffectiveness of those actions are in stark contrast to one another. In all cases there is a stressful appraisal and an appropriate attribution depending upon perceived level of control. In general, it is hypothesized that:

1. perceived external control will be marked by a greater frequency of learned helplessness, amotivation, passivity, and relatively high levels of psychological distress;
2. perceived internal control will be distinguished by high motivation, creativity, flexibility, easy recall from previous experiences, and the lowest levels of psychological distress;
3. and perceived moderate control will be characterized by decreased motivation, feelings of ambiguity, and relatively high levels of distress.

In an effort to condense the wide array of possible event sequences under each level of perceived control, the three situation-specific hypotheses are being presented in outline form with an accompanying flow-chart.

The following actions are possible during perceived external control(Refer to Figure 2:4):

1. Indirect action in the form of rationalization or intellectualization. Such action will be effective in that psychological distress will be reduced. Reduced distress serves as a reinforcement to future expectancies. As a result, the individual recognizes internal control over the present event and any future encounters.
2. The individual simply accepts the situation and takes no action. This situation is characterized by amotivation and passivity(Efran 1963; Franklin 1963; Rotter and Mulry 1965; Crowne and Liverant 1963; Strickland 1962; Getter 1962; and Gore 1962). Ultimately, these circumstances lead to the development of "universal learned helplessness"(Abramson, Seligman and Teasdale 1978; Miller and Norman 1962). This action is effective in that distress is reduced to manageable levels, but at high individual costs.
3. Direct action is taken. The action is effective in that distress is reduced. Future expectancies are formulated such that any further encounters with this situation will result in a perception of internal control.
4. Direct action is taken by the individual. More specifically, attempts are made to generalize adaptive behavior from more familiar situations. These actions are ineffective and distress remains stable or is enhanced. Efforts to cope with the situation continue to be ineffective and, ultimately, universal learned helplessness is the result. Once again, the perception of helplessness is effective in that distress is reduced to manageable levels. However, this is accomplished at extremely high costs to the individual.

The following actions are possible during perceived internal control(Refer to Figure 2:5):

1. Direct action is taken in the form of coping strategies and adaptive behavior. This is the most probable response due to the strong expectancies(Rotter 1966, and Phares 1962), high motivation, creativity, flexibility, and easy recall from prior experiences(deCharms 1980; Deci and Ryan 1980; Deci 1971; Lepper and Greene 1975; Kruglanski, Friedman and Zeevi 1971; Amabile 1982; and McGraw and McCullers 1979). Such action is effective in that distress is reduced. In summary, this process strengthens future expectancies.

2. Figure 2-4: Possible Actions During External Control

anything is possible. This would be inevitable. Ultimately, the individual would develop the perception "personal learned helplessness" with regard to the situation (Abramson, Salliman and Teasdale 1978, Norman 1979). This is effective in that distress is reduced to manageable levels but at high costs to the individual.

(1) Rationalization--> effective--> distress reduced--> strengthens expectancy--> perceived internal control in future encounters.

(2) No action--> universal learned helplessness--> effective--> distress reduced to manageable levels but at high costs.

The following actions are possible during perceived external control:

(3) Direct Action--> ineffective--> distress enhanced--> eventually universal learned helplessness--> effective--> distress reduced to manageable levels but at high costs.

1. Direct action is taken in the form of attempts to generalize or adopt other coping strategies to the present situation. This is effective in that distress is reduced. As a result,

(4) Direct Action--> effective--> distress reduced--> strengthens expectancy--> perceived internal control in future encounters.

2. Direct action is taken. This is continually ineffective and the present level of distress remains the same or is enhanced. As a result, the ambiguous attribution remains. If distress becomes so great that it is unmanageable, the individual may develop "universal learned helplessness" and change perception to external control.

2. No action is taken. Not a very likely situation, but anything is possible. This would be ineffective and, ultimately, the individual would develop the perception of "personal learned helplessness" with regard to the situation (Abramson, Seligman and Teasdale 1978; Miller and Norman 1979). This is effective in that distress is reduced to manageable levels but at high costs to the individual.
3. Direct action is taken. The action is continually ineffective in reducing levels of distress. Ultimately, the individual develops "universal learned helplessness" and perception concerning the particular event is changed to external control. In summary, this process is effective in reducing stress but at high costs to the individual.

The following actions are possible during perceived moderate control (Refer to Figure 2:6):

1. Direct action is taken in the form of attempts to generalize or adapt other coping strategies to the present situation. This is effective in that stress is reduced. As a result, future expectancies concerning ability to cope with this particular event are strengthened. Furthermore, perceived control changes to internal.
2. Direct action is taken. This is continually ineffective and the present level of distress remains the same or is enhanced. As a result, the ambiguous attribution remains. If distress becomes so great that it is unmanageable, the individual may develop "universal learned helplessness" and change perception to external control.

Figure 2-5: Possible Actions During Internal Control

(1) Direct Action-----> effective-----> reduced distress----->
strengthens expectancies.

(2) No Action-----> personal learned helplessness----->
effective-----> distress reduced to manageable levels but at
high costs.

(3) Direct Action-----> ineffective-----> ultimately
develops universal learned helplessness-----> effective----->
distress reduced to manageable levels but at high costs----->
perceived external control in future encounters.

Figure 2-6: Possible Actions During Moderate Control

(1) Generalizations-----> effective-----> distress reduced->
 -----> strengthens expectancies-----> perceived internal
 control in future encounters.

(2) Direct Action-----> ineffective-----> distress
 enhanced-----> if distress becomes too great may develop
 universal learned helplessness-----> effective----->
 distress reduced to manageable levels but at high costs->
 -----> perceived external control in future encounters.

Chapter 3

The Model Applied to Recent Literature

In addition to the research previously mentioned, recent stress literature enhances the attractiveness of the proposed model (Kanner, Coyne, Schaefer and Lazarus 1981). More specifically, Lazarus and his colleagues compared two methods of stress measurement: daily hassles and uplifts versus major life events. Their findings coincide remarkably well with what I would predict utilizing the locus of control model of psychological distress. However, before reviewing the results in more detail, it is first necessary to define and comment on the terms mentioned above.

As a consequence of the Holmes and Rahe (1967) Social Readjustment Scale, the predominate focus of attention in stress literature has been on the influence and impact of major life events (e.g. divorce, death of a spouse, changing jobs) on individual levels of stress and general health (for a review see Dohrenwend and Dohrenwend 1974). Nevertheless, Lazarus and his colleagues are advocating a position which is in stark contrast to that supported by the majority of

the stress literature. They have proposed that relatively minor stresses and pleasures that characterize everyday life play the crucial role in determining individual levels of stress and general health (Coyne et al. 1979; Kanner and Coyne 1979; Lazarus 1980; Lazarus and Cohen 1977; Lazarus et al. 1980). Furthermore, they have labeled these positive and negative common occurrences as uplifts and hassles; respectively. More specifically, hassles are the "irritating, frustrating, distressing demands that to some degree characterize everyday transaction with the environment". For example, traffic jams, losing things, arguments, bad weather, and financial problems are all included under the rubric of daily hassles. Hassles are, by definition, situations with which we have trouble dealing. In contrast, daily uplifts are positive experiences such as the pleasure derived from a successful relationship, relief from hearing good news, or the satisfaction felt after doing well on an exam. In summary, Lazarus and his colleagues compared daily hassles and uplifts versus major life events in their ability to predict psychological symptoms.

As initially proposed, Lazarus et al. (1981) found hassles to be a much better predictor of psychological symptoms than major life events. The correlation between hassles frequency and psychological symptoms was significantly high for the total sample ($r=0.60$, $P<0.0001$). In addition, uplifts were negatively correlated with negative affect for men ($r=-0.18$, n.s.). In other words, men did not perceive uplifts as being stressful. In general, Lazarus and his colleagues concluded that

daily hassles provide a more "direct and broader estimate of stress than major life events". Although a major life change can, in itself, create a sequence of hassles; the findings reviewed here suggest that hassles contribute to psychological symptoms independent of major life events. For a review of the possible relationships between hassles and major life events see: Hinkle 1974 and Kaplan 1979.

Once again, implicit within this discussion on the relative importance of daily hassles in determining individual levels of stress is the significance of personality variables. By definition, hassles are situations with which we have trouble coping. Therefore, it is understandable that while some hassles are situationally determined(e.g. traffic jams and unexpected company) others occur because of differences in individual ability to deal with certain situations(e.g. shyness when interacting with other people). Ultimately, any successful stress theory will have to differentiate between the situational and individual components of a stressful encounter. The present model represents an effort to stimulate such research. However, at this time no attempt is being made to uncover "trait components" of attribution. Rather, it is simply an accepted fact that some individuals will be more likely to perceive a greater number of events as being under internal control than others; and vice versa(Rotter, 1966).

As previously stated, the findings of Lazarus et al.(1981) agree with the predictions made utilizing the proposed locus of control model

of stress. More specifically, it is hypothesized that a moderate locus of control is characterized by ambiguity and relatively high levels of psychological distress. By definition, hassles resemble the situation present during a perceived moderate level of control. In other words, the individual knows he can influence the situation, but has difficulty doing so---an ambiguous encounter. By equating the concept of hassles with that of perceived moderate control, the findings of Lazarus et al. support the proposed model. In other words, hassles were marked by the relatively high levels of stress and this is what is expected to occur during perceived moderate control. Although it needs to be proven that during a hassle situation one perceives a moderate locus of control, the argument seems highly plausible. In summary, it is hypothesized that a moderate or external locus of control would be characterized by relatively high levels of distress; followed internal control with somewhat lower levels of distress. In addition a greater frequency of hassles than life events would be marked by a perceived moderate level of control.

This proposed model takes a fresh approach to an old problem---stress. Furthermore, this model does not simply recount observations, but attempts to explain such observations. Hopefully, such a paradigm will stimulate rigorous and extensive investigation.

Chapter 4

Method

The purpose of the present investigation was rather simple; to validate the existence of individual perceptions of moderate control and examine the relationship between appraisal, attribution or feelings of control, and psychological distress. Hopefully, such an analysis will support the proposed model.

4.1 Subjects

Thirty male and forty-five female subjects responded to a Hassles and Life Events Questionnaire. All were students and active participants in the University of Texas-Psychology 301 subject pool. Ages ranged from: 18 to 20 ($n=58$), 21 to 25 ($n=12$), and above 25 ($n=5$). In addition, the ethnic breakdown was as follows: Black ($n=6$), White ($n=55$), Mexican-American ($n=6$), Oriental ($n=4$), and four subjects who chose not to classify themselves.

4.2 Measures

Each subject completed a Hassles and Life Events Questionnaire developed by the experimenter(See Appendix). A minimum of background information was appropriate since all subjects were participants in the Psychology 301 subject pool. More specifically, subjects answered questions regarding sex, age, and ethnic background. The questionnaire was divided into two sections; one dealing specifically with life events and the other with hassles. In more detail, each subject was presented five questions concerning hassles and five pertaining to major life events(See Appendix). The specific hassle and life event situations utilized were taken from some recent work of Holahan and Holahan(1983). It should be noted that the life events presented for appraisal have often been referred to as "negative life events". These negative life changes were used because research has shown negative events to be more strongly related to personal distress than general life changes(Ross and Mirowsky 1979; Vinokur and Selzer 1975). In essence, it is hoped that a stronger and more clearly defined relationship will result.

In addition to questions asking if the particular event had occurred, subjects answered questions regarding: primary and secondary appraisal, effectiveness of action, familiarity of action, control over the situation, and distress experienced. Answers were in the form of a seven point Likert-type response scale. Scale scores were calculated for each of the following areas: primary appraisal, secondary

appraisal, effectiveness, familiarity, perception of control, and distress experienced. They were calculated by simply summing individual responses and dividing by the number of responses given. In summary, twelve scale scores were calculated for each subject; six pertaining to negative life events and six dealing with hassles.

Internal consistencies for the scales were relatively high for some and poor for others. More specifically, the Cronbach alphas for each scale were as follows. For hassles:

- primary appraisal---0.67
- secondary appraisal---0.65
- effectiveness---0.66
- familiarity---0.45
- perception of control---0.47
- distress experienced---0.67

For negative life events:

- primary appraisal---0.56
- secondary appraisal---0.64
- effectiveness---0.58
- familiarity--- 0.31
- perception of control---0.51
- distress experienced---0.50

Although some of these alpha values are low, it is understandable if the

small number of items per scale($n=5$) and sample population size are taken into consideration. In general, the scales of primary concern(i.e. primary and secondary appraisal, perceived control, distress experienced) are at acceptable levels. It is important to note that the scales concerning effectiveness of action and familiarity are not instrumental in the proposed model because they are descriptive in nature. In other words, they are not an integral part of the cognitive process which precedes action. This was alluded to earlier in the text. Reference can be made to chapter two for further clarification.

In summary, the questionnaire was administered to seventy-five subjects in a university classroom. Approximately forty-five minutes were required to complete the instrument.

5.1 Frequency Distribution

As stated previously, subjects analyzed the situation presented and responded on a seven-point Likert-type scale. In order to obtain a frequency distribution of responses regarding perceptions of control, answers were recoded as responses external, moderate, and internal ranges. More specifically, responses in the range of one to two were recoded as external; responses in the range of three to five as moderate, and those in the range of six to seven as internal. Since the distribution of extreme versus moderate feelings of

Chapter 5

Results

In keeping with the initial purpose of this investigation--to validate the existence of a moderate locus of control and examine the relationship between appraisal, attribution, and distress--only findings relevant to this objective will be presented. Indeed, the data set amassed is much richer than this preliminary analysis indicates. Nevertheless, future research holds promise of more detailed and sophisticated analysis.

5.1 Frequency Distribution

As stated previously, subjects analyzed the situation presented and responded on a seven point Likert-type scale(See Appendix). In order to obtain a frequency distribution of responses regarding perceptions of control, answers were recoded to represent external, moderate, and internal ranges. More specifically, responses in the range of one to two were recoded as external; responses in the range of three to five as moderate, and those in the range of six to seven as internal. Since the distribution of extreme versus moderate feelings of

control is of primary interest, internal and external perceptions are grouped together under in heading of "extreme perceptions of control". Table 1 shows the distribution obtained. In both the hassle and life event sections of the questionnaire perceptions of moderate control predominated, although they were more frequent in hassle situations. In more detail, of the possible 375 situations appraised in each section of the questionnaire(i.e. 5 situations per section per subject); 209 hassle situations and 179 life events were characterized as being under moderate control. In summary, the modal response in both hassle and negative life event situations indicated moderate control. Taken alone, this simple frequency distribution emphasizes the need for a re-evaluation of the simple internal-external locus of control dichotomy. The proposed alternative is to view locus of control as existing along a continuum from external to moderate to internal control.

5.2 Correlations

Correlations among the various components of the model---primary appraisal, secondary appraisal, effectiveness of action, familiarity with situation, perceptions of control, and distress---are presented in Table 2. The findings are almost identical in both hassle and life event conditions. In more detail, primary appraisal is negatively related to the following: secondary appraisal, effectiveness of action, and feelings of control. More specifically, it is logical to assume that the more threatening a situation appears to be(primary appraisal)

Table 5-1: Frequency Distribution of Moderate and Extreme Perceptions of Control

<u>Condition</u>	<u>PERCEPTIONS OF CONTROL</u>	
	Moderate	Extreme
Hassles	209	166
Life Events	179	196

the less able or prepared (secondary appraisal) an individual will feel in coping with that situation and vice versa. Similarly, it is plausible that the more threatening the situation, the less effective the action, and the less likely one is to sense control over the situation. The contrasting reciprocal relationship follows the same logical sequence and, as with all correlational analyses, is equally possible. A moderately positive relationship exists between primary appraisal and familiarity with the situation. Of great interest is the extremely high positive correlation between primary appraisal and distress experienced. It is not surprising to find greater perceived

distress when the situation is assessed as more threatening and vice versa. These relationships are the same for both conditions and are expected when utilizing the proposed model.

As would be expected, secondary appraisal was found to be positively correlated with both effectiveness of action and feelings of control. In other words, the more prepared an individual was to cope with the situation, the more effective the action, and the greater the perceived control. Once again, the reciprocal relationship is possible. No relationship was delineated between secondary appraisal and familiarity with the situation. Finally, a high negative correlation was realized between secondary appraisal and distress(i.e. the less able to deal with the circumstances, the greater the distress and vice versa). Once again, these relationships are identical for both hassle and life event situations and are expected when utilizing the proposed model.

A few additional relationships were observed that are of some interest. In both situations, effectiveness of action was negatively correlated with distress and positively correlated with feelings of control. In addition, feelings of control were negatively related to distress experienced in both hassle and life event situations. In summary, all the correlations discussed are highly significant and expected with respect to the proposed model of stress.

Table 5-2: Correlations Among Components of the Proposed Model in Hassle and Life Event Situations

Hassles:

Sa	-.50***					
Eff	-.27**	.69***				
Con	-.40***	.74***	.63***			
Fam	.27**	-.10	.03	-.08		
Dis	.81***	-.58***	-.43***	-.54***	.15	
<hr/>						
	Pa	Sa	Eff	Con	Fam	Dis

Life Events:

Sa	-.52***					
Eff	-.32**	.66***				
Con	-.45***	.52***	.56***			
Fam	.09	.10	.04	-.02		
Dis	.74***	-.53***	-.27**	-.42***	.12	
<hr/>						
	Pa	Sa	Eff	Con	Fam	Dis

Legend:

Pa=Primary Appraisal

Sa=Secondary Appraisal

Eff=Effectiveness of Action

Con=Control

Fam=Familiarity

Dis=Distress

***p=.001

**p=.01

*p=.05

5.3 Multiple Regressions

Multiple regression analyses were performed utilizing psychological distress as the dependent variable and appraisal, effectiveness of action, feelings of control, and familiarity with situation as predictors. With respect to the variables of primary concern(primary-secondary appraisal and feelings of control), the multiple R's were highly significant in both the hassle and life event equations. More specifically, the multiple R was .76 utilizing primary appraisal, secondary appraisal, and control to predict psychological distress resultant from life events($R^2=.57$, $df=3,71$, $p<.001$). Likewise, the multiple R was .85 using the corresponding variables to predict distress in hassle situations($R^2=.72$, $df=3,71$, $p<.001$).

In both situations, the addition of effectiveness of action and familiarity with the situation as predictor variables added insignificantly to the equation. This was to be expected. These variables are simply descriptive variables in the overall model, not vital cognitive processes determining action and subsequent distress.

Step-wise regression further emphasized the importance of appraisal(primary-secondary) and control in predicting distress in both conditions. Table 3 presents the findings. When entered as a first step, effectiveness of action and familiarity with the situation contributed significantly to the prediction equation in both the hassle

and life event conditions. The multiple R was .30 for the first step of the life event equation ($R^2=.09$, $df=2,72$, $p<.05$). Similarly, the multiple R for hassle situations was .46 on the first step ($R^2=.21$, $df=2,72$, $p<.001$). In both instances, appraisal and control added as a second step contributed significantly to the prediction equation. With hassles the multiple R was .86 ($R^2=.73$, $df=5,69$, $p<.001$). The multiple R was .77 with life events ($R^2=.60$, $df=5,69$, $p<.001$).

5.4 Path Analysis

Path analysis was performed in order to further validate the sequential cognitive-phenomenological model proposed. Table 4 presents the beta coefficients and coefficients of determination for the designated path variables in both the hassle and life event conditions. In addition, figures 5:1 and 5:2 provide the corresponding path diagrams. As evidenced in hassles situations, the beta coefficient is significant for the direct effect of secondary appraisal in predicting attribution or feelings of control. The indirect cumulative effect of secondary and primary appraisal for predicting attribution is highly significant, accounting for 54% of the variance. However, it should be noted that residual paths are large (.68) and should be taken into consideration in future analyses of the model.

With psychological distress from hassles as the dependent variable, the beta coefficients for primary appraisal and control are

Table 5-3: Step-wise Regression

Life Events:	step	r^a	F^b
effectiveness of action/ familiarity with situation	1	.30	3.57*
Primary/ secondary apprai- sal/feelings of control	2	.77	20.08***

Hassles:			
effectiveness of action/ familiarity with situation	1	.46	9.81***
primary/ secondary apprai- sal/feelings of control	2	.86	37.87***

^aMultiple R

***p=.001

^bOverall F

**p=.01

*p=.05

significant. Once again, the indirect cumulative effect of primary-secondary appraisal and attribution in predicting psychological distress is highly significant, accounting for 72% of the variance. It is important to note the moderate size of residual paths(.53) and the need for future research to focus on possible weaknesses in the model.

The findings are nearly identical for life event situations. Both primary and secondary appraisal beta weights were significant in predicting attribution. Also, indirect cumulative effects of both variables were highly significant in predicting feelings of control($R^2=.31$). However, residual paths were somewhat large(.83) and should be evaluated in the future. Finally, the beta coefficient for primary appraisal was significant for predicting distress and that of attribution approached significance. The cumulative effects of the three variables for predicting distress were highly significant ($R^2=.57$). The residual paths were moderate at .66.

5.5 Additional Analysis

In addition to the previous analyses, simple plots were run for distress as a function of perceived control in both conditions(Refer to Figures 5:1 & 5:2). As is evidenced by the regression lines(solid) and confidence intervals (dotted) drawn within the plots, the trend is highly linear. Although I had predicted more of a curvilinear trend, it is possible that more precise measurement could uncover such a

Table 5-4: Beta Coefficients and Coefficients
of Determination for Selected Path Variables

		<u>Predictors</u>			R ²
<u>Dependent Variable</u>	att	sa	pa		
<u>Hassles:</u>					
Attribution		.71***	-.04		.54
Distress	-.20*	-.08	.69***		.72
<hr/>					
<u>Life Events:</u>					
Attribution		.39***	-.25*		.31
Distress	-.19*	-.05	.62***		.57
Legend:		***p=.001			
att=Attribution		**p=.01			
sa=Secondary Appraisal		*p=.05			
pa=Primary Appraisal					

Figure 5-1: Path Diagram: Hassles

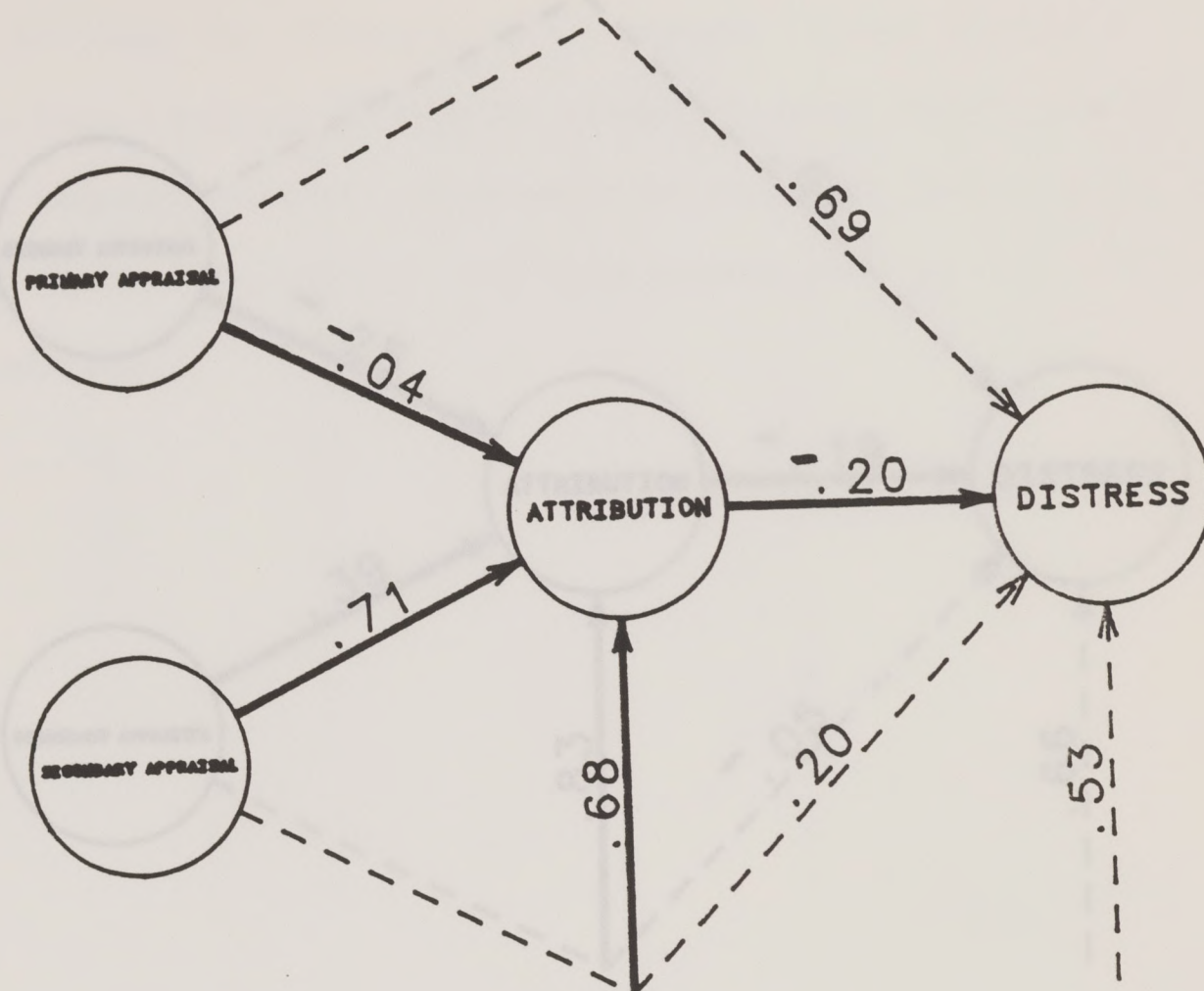
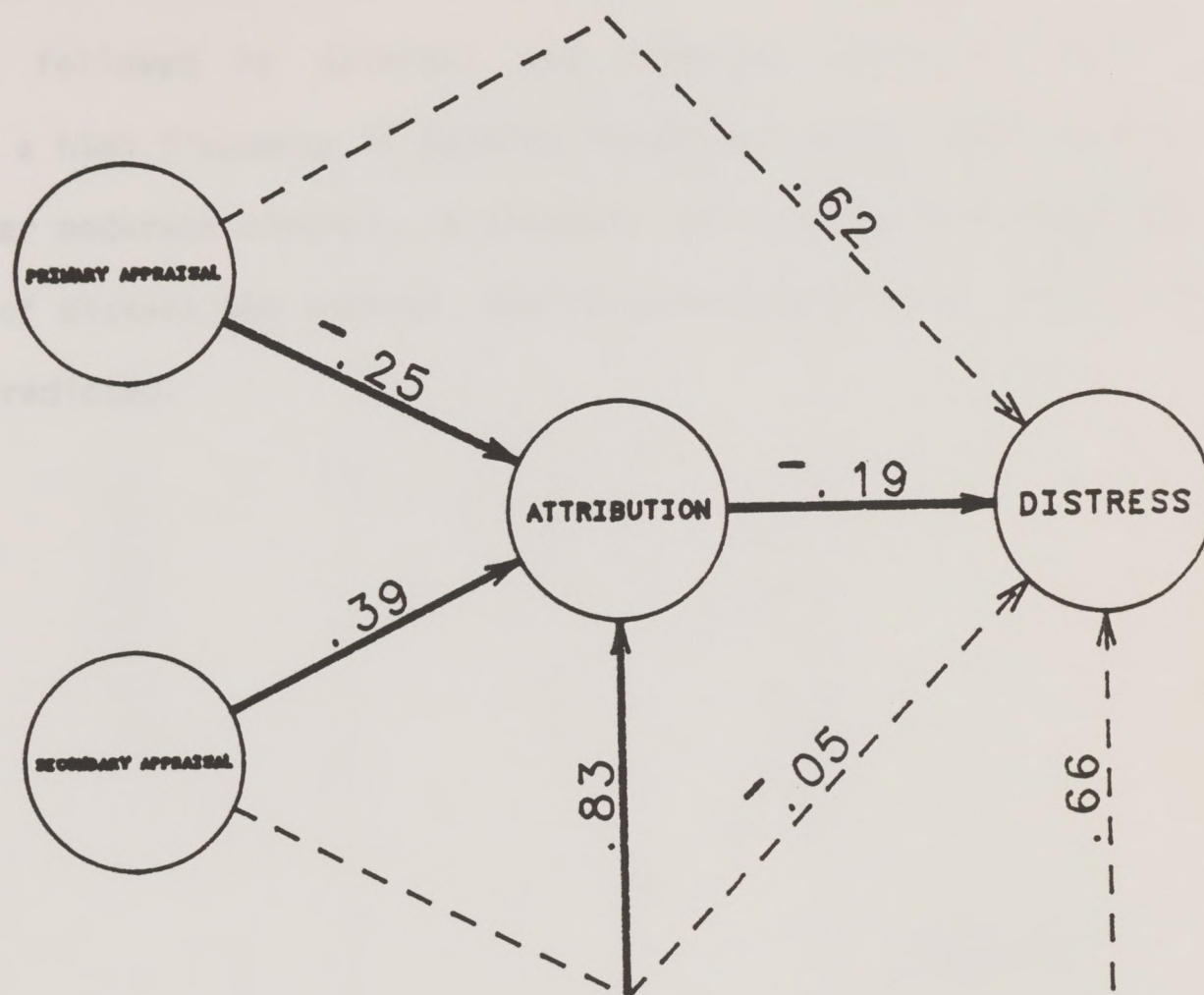


Figure 5-2: Path Diagram: Life Events



relationship. Nevertheless, the general relationship is clear. Perceptions of internal control are marked by the lowest levels of distress; followed by external and moderate levels of control. In addition, a high frequency of hassles situations were characterized as being under moderate control. I strongly believe that with more precise measures of distress and control, the relationship will be more similar to that predicted.

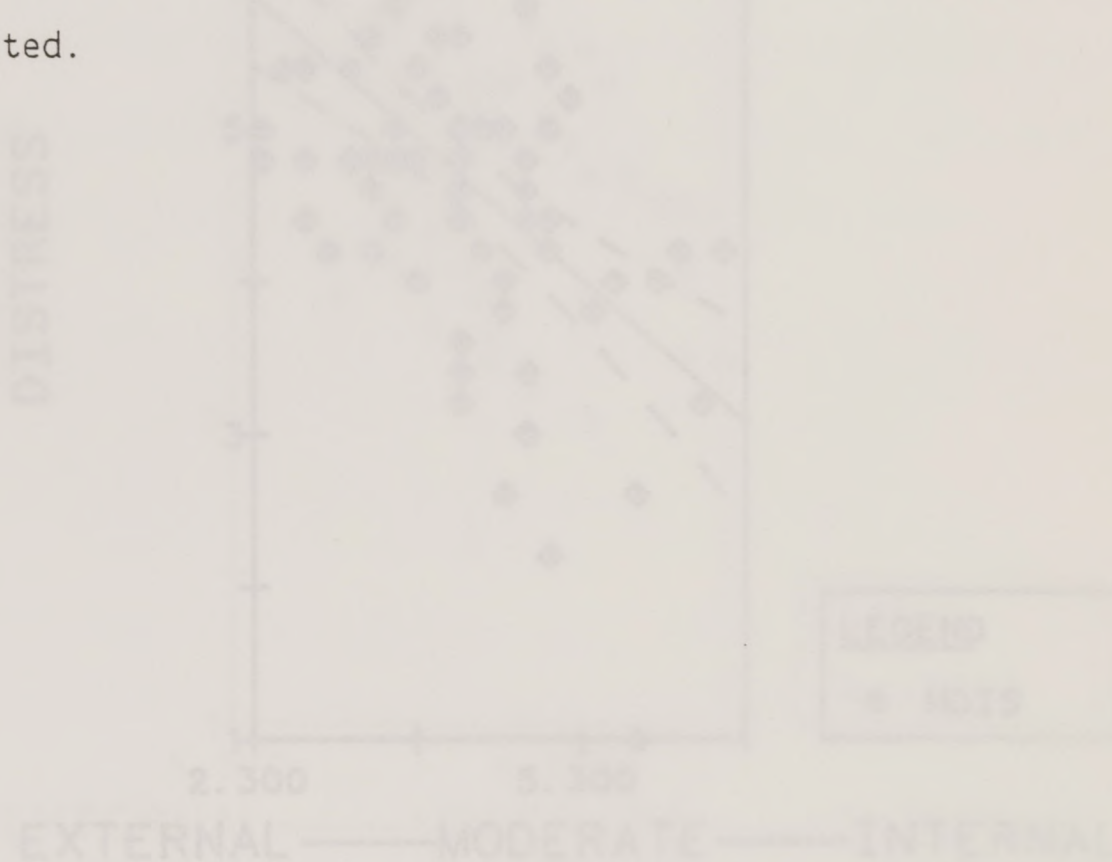


Figure 5-3: Distress as a Function of Perceived Control: Hassles

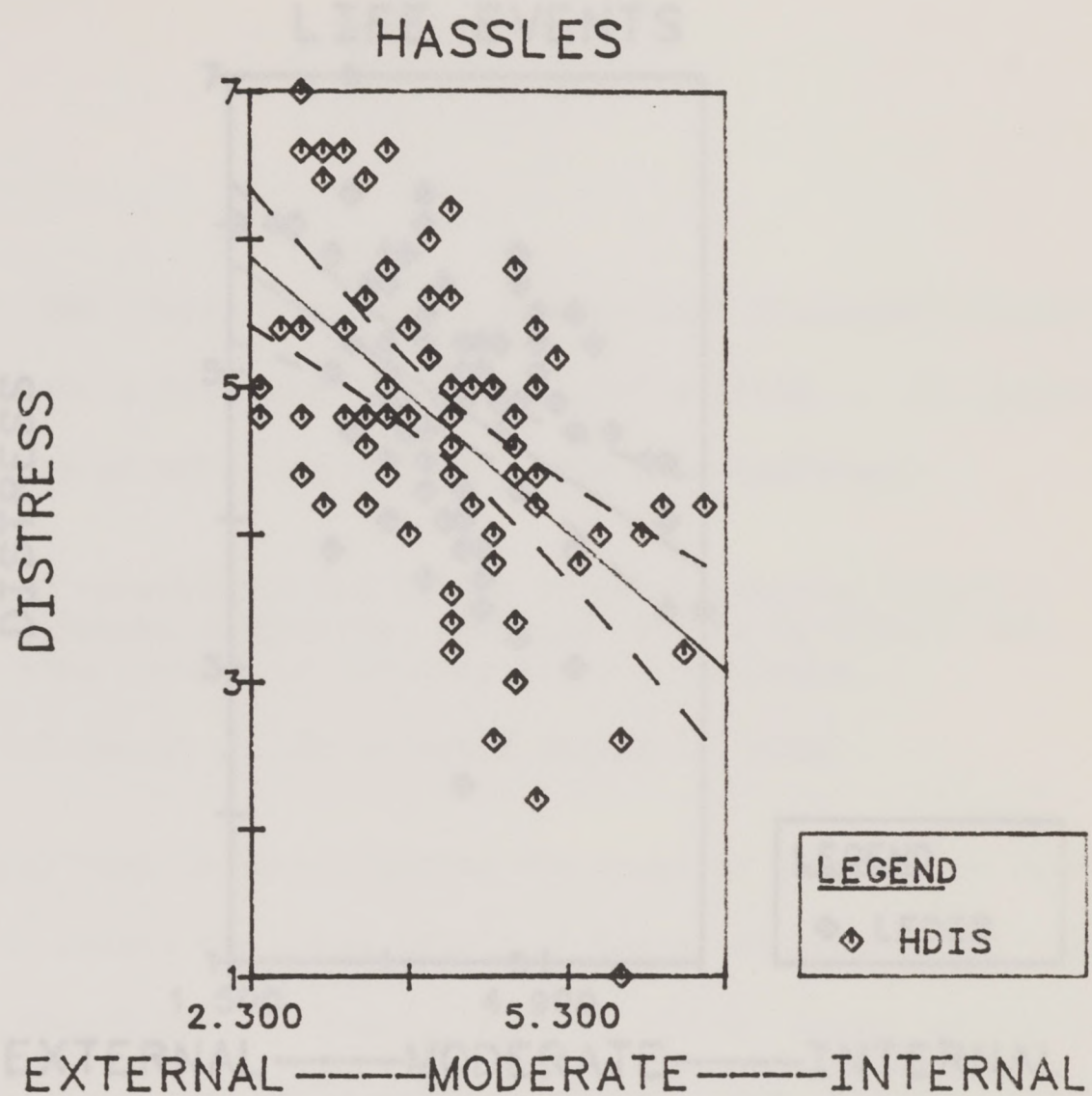
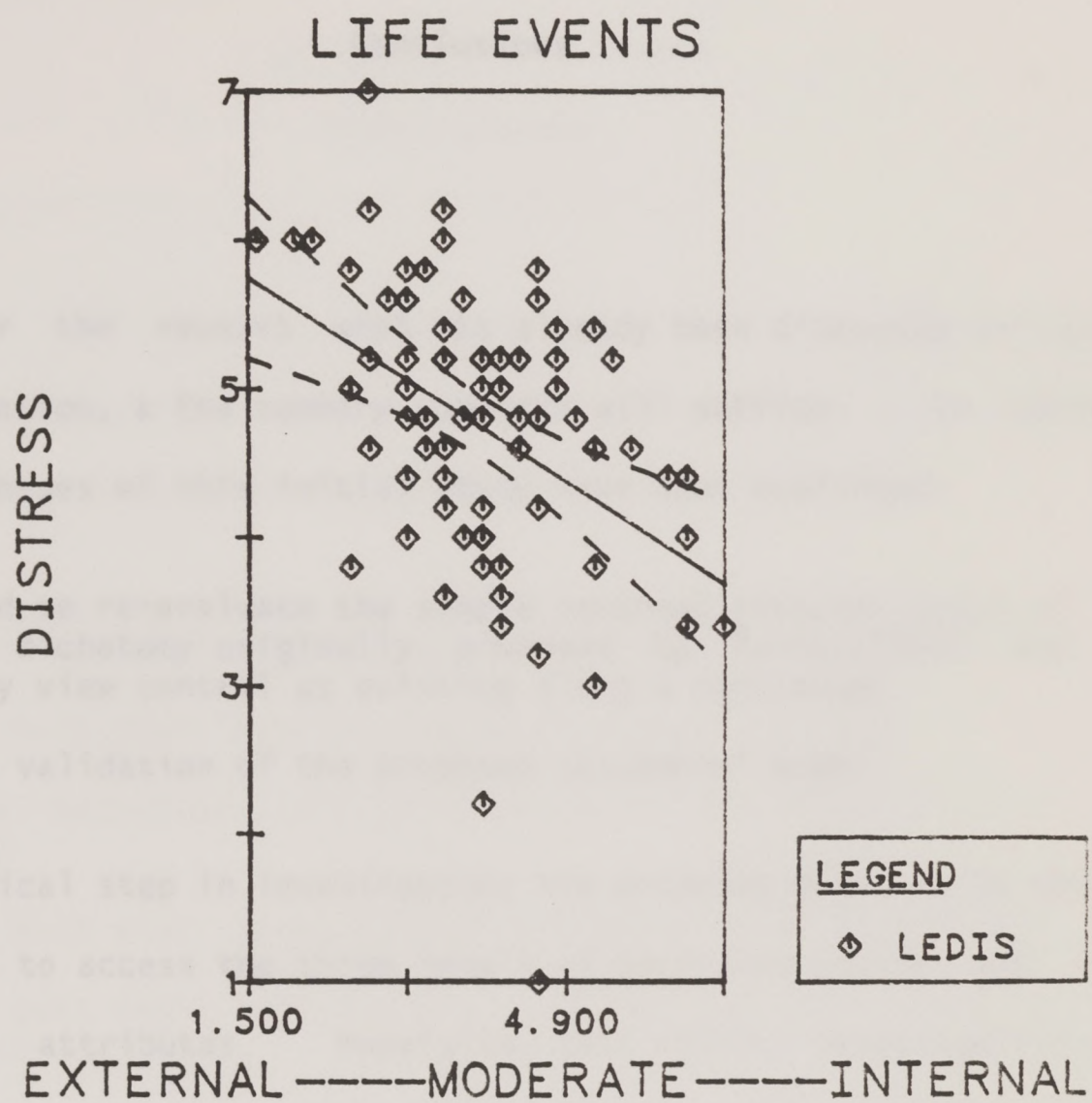


Figure 5-4: Distress as a Function of
Perceived Control: Life Events



Chapter 6

Conclusions

Rather than recount what has already been discussed throughout this investigation, a few summary comments will suffice. In general, the two hypotheses of this initial study have been confirmed:

1. the need to re-evaluate the simple internal-external locus of control dichotomy originally proposed by Rotter(1966) and possibly view control as existing along a continuum,
2. and the validation of the proposed sequential model.

The next logical step in investigating the proposed model is to develop an instrument to access the three levels of perceived control and their corresponding attributes. Hopefully, this initial investigation will result in rigorous and challenging research with respect to the sequential model offered. In conclusion, this first step has proven fruitful. Nevertheless, only continued effort will bring this model into the realm of true scientific structure.

Appendix A.

Hassles and Life Events

Questionnaire

The following are the situational questions presented in the life events section of the questionnaire:

1. In the past year, have you been faced with the death of a close friend or family member?
2. In the past year, have you moved to a new location?
3. In the past year, have you experienced a serious illness or injury?
4. In the past year, have you had an alcohol or drug problem?
5. In the past year, have you had serious problems with your parents?

Subjects were asked if the particular event had occurred and, if not, they were asked to imagine that it had and answer the following questions regarding each situation:

- When faced with this situation, how harmful or threatening did you feel it was?(primary appraisal)
- When faced with this situation, how able or prepared did you feel to deal with it?(secondary appraisal)

- How effective were your efforts to deal with this situation?(effectiveness of action)
- What level of control did you feel you had over the situation?(attribution or feelings of control)
- How often in the past have you encountered this situation?(familiarity).
- How distressing was this situation?(distress)

All of these follow-up questions were answered on a seven point Likert-type scale. In summary, the initial situation question was presented; followed by the occurrence and secondary evaluation questions.

The hassles section of the questionnaire was identical to the life events section except for the specific situations presented to the subject. In this section, the situational questions were as follows:

1. In the past month, has a family members of yours been ill?
2. In the past month, have you been lonely?
3. In the past month, have you had too many things to do?
4. In the past month, have you not had enough personal energy?
5. In the past month, have you had difficulties with friends?

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