INDIVIDUAL DIFFERENCES IN STRESS-REACTIVITY AND THE
INFLUENCE OF SELF-COMPLEXITY ON COPING BEHAVIOUR

DISSERTATION

Presented to the Graduate Council of the
University of North Texas in Partial
Fulfillment of the Requirements

For the Degree of

DOCTOR OF PHILOSOPHY

By

Alison J. Longhorn, M.S.
Denton, Texas
December, 1992
INDIVIDUAL DIFFERENCES IN STRESS-REACTIVITY AND THE INFLUENCE OF SELF-COMPLEXITY ON COPING BEHAVIOUR

DISSERTATION

Presented to the Graduate Council of the University of North Texas in Partial Fulfillment of the Requirements For the Degree of

DOCTOR OF PHILOSOPHY

By

Alison J. Longhorn, M.S.
Denton, Texas
December, 1992

The influence of self-complexity on coping behaviour and emotional adjustment is explored. The Role Construct Repertory Grid (REPGrid) Community of Selves procedure is used to assess self-complexity. Following a structured interview format, subjects completed a battery of measures including the REPGrid, Self-Rating Depression Scale, Hassles Scale, Major Stress Scale, and Coping Index. Results indicate that complex individuals utilize a wider variety of coping behaviours than less complex individuals, although the perceived severity of stressful events was no different between groups. Micro-analyses at the individual self level revealed mixed or null results. Finally, more dysphoric individuals reported using more negative coping behaviours (drinking, smoking) than individuals not experiencing dysphoric mood. Findings are discussed a) in terms of the utility of the REPgrid in the assessment and understanding of self-complexity and its’ relationship to mental health processes, b) in accordance with a person-event transactional model of health and illness, and c) in terms of the relevance to those psychotherapies that emphasize and
encourage people to develop distinctions among their self-aspects, as well as new ways of construing the world, and new behavioural options, e.g. Fixed Role Therapy.
ACKNOWLEDGEMENTS

I would like to express my appreciation to Dr. Joseph Doster for his supervision throughout this research and for his valuable comments in drafting this dissertation. Thanks also to Tina Bolinger for all her help with the data collection, and thanks to Lesley Longhorn and Robert Assels for their time and efforts with the codings.

Thanks also go to the secretarial department of UNT, especially Ms. Jan Nelsen and Ms. Linda Woods, for their help in coordinating the details of this international effort.

I would also like to express my sincere gratitude to my family, especially Wes, for their support and encouragement. Last, but not least, my deepest appreciation and affection to Colin for his reassurance through the final days of this project, and sweet Casey for making those days brighter.

This dissertation is dedicated to my father and mother with all my love.
# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACKNOWLEDGEMENTS</td>
<td>iii</td>
</tr>
<tr>
<td>LIST OF TABLES</td>
<td>v</td>
</tr>
<tr>
<td>Chapter</td>
<td></td>
</tr>
<tr>
<td>I. INTRODUCTION</td>
<td>1</td>
</tr>
<tr>
<td>Stress and Illness</td>
<td></td>
</tr>
<tr>
<td>Transactional Models</td>
<td></td>
</tr>
<tr>
<td>Coping, Depression, and Stressful Life Events</td>
<td></td>
</tr>
<tr>
<td>Individual Differences and Adjustment</td>
<td></td>
</tr>
<tr>
<td>Self-complexity</td>
<td></td>
</tr>
<tr>
<td>Construct Organization and Adjustment</td>
<td></td>
</tr>
<tr>
<td>Cognitive-complexity</td>
<td></td>
</tr>
<tr>
<td>Hierarchical Integration and Adjustment</td>
<td></td>
</tr>
<tr>
<td>Coping and Stress</td>
<td></td>
</tr>
<tr>
<td>Coping and Depression</td>
<td></td>
</tr>
<tr>
<td>Hypotheses</td>
<td></td>
</tr>
<tr>
<td>II. METHOD</td>
<td>34</td>
</tr>
<tr>
<td>Subjects</td>
<td></td>
</tr>
<tr>
<td>Measures</td>
<td></td>
</tr>
<tr>
<td>Procedure</td>
<td></td>
</tr>
<tr>
<td>III. RESULTS</td>
<td>45</td>
</tr>
<tr>
<td>IV. DISCUSSION</td>
<td>57</td>
</tr>
<tr>
<td>APPENDIX</td>
<td>69</td>
</tr>
<tr>
<td>REFERENCES</td>
<td>95</td>
</tr>
</tbody>
</table>
LIST OF TABLES

Table                                                                 Page
1. Summary Statistics of Sample. ........................................ 46
2. Coping Strategies and Effectiveness Ratings for High and Low Ordination Groups. 48
3. Intercorrelations Among Depression, Stress, Coping and Self-Complexity Variables. 49
4. Individual Correlations Between Ordination Scores and Coping Strategies. 50
5. Individual Correlations Between Ordination and Self-Impact Scores. 51
6. Inter-Correlations of Judges' Ratings For Individual Selves 53
7. Emotion-Focused and Ineffective Escapism Behaviours in Coping Index. 56
CHAPTER I

INTRODUCTION

Recent conceptualizations of mental health and mental illness focus on the interactions between environmental events and psychological characteristics of the individual. In fact, theoreticians argue that the "bestfitting" model of health and illness should be expanded to a holistic, biopsychosocial model in which the person-environment interactions are given added emphasis (Coyne & Holroyd, 1982; Trumball & Appley, 1986). This more comprehensive view of health and illness recognizes that an individual can both react to and/or act upon the environment (Dohrenwend, 1961, 1986; Kelly, 1955). Psychological adjustment is thus a function of past environmental/developmental stress, psychological and environmental resources of the individual, and behavioural coping skills (Cronkite & Moos, 1984; Hickox, 1985; Trumball & Appley, 1986).

Personal characteristics have been postulated to bear a direct relationship to the effectiveness of one’s adjustment to stress (Hickox, 1985). The role of personal characteristics has received some empirical attention because such characteristics are believed to provide the "psychological context" for coping (Billings & Moos, 1982).
In particular, an extensive amount of research in the past decade has investigated the impact of stressful events on the development of depression, and how the impact of these events is mediated by characteristics of the individual. Resources such as early coping style, sense of environmental mastery, and interpersonal skills are believed to act as mediating variables in the manifestation of stress-induced depression (Ormel & Sanderman, 1989; Richman & Flaherty, 1985). The effect of these variables on adjustment is both direct in terms of self-esteem and need for control, and indirect in that they determine in part the availability of social resources — also found to be related to stress-induced depression (Billings & Moos, 1981, 1982, 1983, 1985).

Recent research has explored the relationship between self-complexity and emotional adjustment, and the literature indicates that self-complexity acts as a cognitive buffer against stress-related illness and depression (Linville, 1985, 1987; Nicholson, 1985). Linville (1987) argues that greater self-complexity entails cognitively organizing self-knowledge in terms of a greater number of self-aspects and maintaining greater distinction among those aspects. Linville’s research provides evidence for her hypothesis that self-complexity moderates the adverse effect of stressful life events on physical and mental health outcomes (Linville, 1985, 1987). The present study will investigate
the role of self-complexity in the evaluation and reaction to stressful events. Specifically, the notion of self-complexity as a "cognitive buffer" against stress-related illness is evaluated in terms of its relationship to coping behaviour, as coping can be viewed as a "behavioural" buffer against stress-related illness and depression.

Stress and Illness

It is no longer adequate or possible to view illness as an entity within itself that is unrelated to personality or life-style behaviours. Health psychologists argue that the onset of mental and physical illness can be influenced by dispositional variables, environmental and psychological stress, cognitive resources (locus of control), environmental resources (social support), and demographic variables (age, sex, race, & income) (Ormel & Sanderman, 1989; Rodin & Salovey, 1989). Further, the course of any illness is also influenced by the above mentioned variables, as well as coping behaviours, and health-promoting behaviours (Dohrenwend, 1986).

Research that has attempted to delineate the role that stress plays in jeopardizing both physical and mental health has conceptualized stress in one of three ways (Coyne & Holroyd, 1982). First, stress can be viewed as a stimulus that produces a feeling of tension. In line with this "stimulus" model, events ranging from an earthquake, to the birth of a new baby into a family, to losing one's keys are
all viewed as stressors (Kanner, Coyne, Schaeffer, & Lazarus, 1981). Stimulus models of stress emphasize the precipitating role of environmental factors in the onset of illness. There is a substantial amount of evidence implicating the role of environmental stressors in the onset of depression, thus lending support to the stimulus model of stress and illness (Brown, 1979; Paykel, 1978, 1979). Depression has been found to be associated with stressful events involving health-related problems, financial problems, relationship difficulties, and life role strains such as parent or spouse (Billings & Moos, 1982). In terms of type of event experienced, the literature has consistently found that the hassles of everyday life have a greater influence on psychological and physical health than major life stress (Kuiper, Olinger, & Air, 1988; Kuiper, Olinger, & Martin, 1988; Weinberger, Hiner, & Tierney, 1987). Hassles have been defined as "the irritating, frustrating, distressing demands that in some degree characterize everyday transaction with the environment" (Kanner, et. al., 1981). Research has found that depressed individuals report more "daily hassles" than non-depressed individuals (Olinger, Kuiper, & Shaw, 1988).

The second conceptualization of stress emphasizes the physical and psychological response to stressors. The "response" model views stress as the internal feeling generated from the occurrence of an event (Coyne & Holroyd,
The emphasis in this model is on the physiological mobilization necessary for handling stressful situations. Selye (1956) maintained that stress is a predictable set of physiological reactions to stimuli that disrupt homeostasis. These reactions constitute the General Adaptation Syndrome—consisting of the alarm, resistance, and exhaustion stages—believed to be adaptive because they prepare the individual to cope with imminent danger.

The first two conceptualizations of stress and illness are somewhat limiting in that there seems to be a great deal of both interindividual and intraindividual variability in terms of what is stressful for a particular person and how a stress response manifests itself. It is a fact that many people facing stressful events do not experience illness or depression, and many who are ill or depressed do not report recent stress.

Transactional Models. The most comprehensive model of stress views this construct as a process that involves the interaction between the person and his or her environment (Lazarus & Folkman, 1984). In this view, environmental events and personal thoughts, feelings, and behaviours are involved in a reciprocal process in which each affects the other. The person-environment view of stress appears to be more acceptable in theory in that past research efforts have failed to show a strong relationship between life events and
subsequent pathology, physical or psychological (Coyne & Holroyd, 1982).

This conceptualization places emphasis upon the critical role of cognitive appraisal in mediating the effects of stressors on adjustment. Lazarus & Folkman (1986) define stress as:

...a term to refer to the operation of many variables and processes when demands tax or exceed the person's resources and the person appraises the encounter as relevant to well-being, engages in coping processes, and responds cognitively, affectively, and behaviorally to feedback about what is happening. (p. 75)

One cannot define an event as a stressor without concomitantly referring to the characteristics of the individual that somehow make them vulnerable to such an event (Hammen, Marks, deMayo, & Mayol, 1985; Hammen, Ellicott, Gitlin, & Jamison, 1989; Kuiper, Olinger, McDonald, & Shaw, 1985; Kuiper, et. al., 1988; Kuiper, et. al., 1989; Lazarus & Folkman, 1986). In order for an event to be labelled as stressful, an individual must perceive it to be threatening and challenging. Lazarus & Folkman (1984) referred to this as the appraisal of an event. Appraisal is actually a two step process. Primary appraisal involves acknowledging the presence of a potential threat or challenge whereby the amount of threat perceived triggers an
emotional response. Secondary appraisal involves the assessment of available coping strategies along with the reevaluation of the initial stressor to ascertain whether or not the demands of the situation exceed one's resources. This reevaluation will have a subsequent effect of either escalating or diminishing the intensity of the emotional response (Lazarus & Folkman, 1984).

Similar to Lazarus' notion of appraisal, Kelly (1955) believed that an event would be threatening or stressful only if it was construed in such a manner. Emotional reactions such as anxiety, threat, or fear, were defined by Kelly as "transitional constructs" which would be enacted when an individual sensed that their systems did not fit current life demands. For example, Kelly (1955) defined anxiety as "the recognition that the events with which one is confronted lie outside the range of convenience of one's construct system" (p.495). An event would likely be perceived as stressful and induce anxiety when there were changes that emerged from the event which did not fit with one's understanding of the world and were likely to have a substantial impact on one's understanding of one's self and the world (Hickox, 1985; Kelly, 1955).

In the empirical literature addressing the issues of coping and adjustment to life stress, cognitive processes have been viewed as an inherent component of one's coping abilities. Billings and Moos (1981) defined coping as
"cognitions and behaviours that serve to appraise the meaning of stressors, to control or reduce stressful circumstances, and to moderate the affective arousal that accompanies stress" (p. 120). The role of cognition in adjusting to the effects of stressful life events has therefore been examined primarily as a moderator variable of one's coping resources (Moos & Swindle, 1990).

Cognition, Depression, and Stressful Life Events

The cognitive model of depression proposes that dysfunctional cognitions are the basis for all behavioural, motivational, and affective manifestations of depression. These dysfunctional cognitions result from the activation of idiosyncratic cognitive structures or schemata that were defined as relatively enduring cognitive generalizations that guide an individual's thought processes and allow one to process environmental information quickly and efficiently (Beck, 1967a, 1967b; Markus, 1977). According to Beck, the schemata that operate in depression are dysfunctional in terms of their idiosyncratic content, resulting in faulty information processing and inappropriate or distorted conceptualizations of reality. Beck referred to these structures as the "negative cognitive triad" of depression (Beck, Rush, Shaw, & Emery, 1979). All representations and interpretations of experience made by the depressed individual reflect a systematic, negative bias against the self (Beck, 1967b, 1983).
The content of the schemata that mediate the individual’s cognitive processes will influence the manner in which the individual construes an event. The depressed individual’s negative cognitive bias reflects negative, idiosyncratic schematic content. The existence of schemata that influence the encoding, storage, and retrieval of information in depression has been supported by numerous empirical studies (Gotlib & McCann, 1984; Greenberg & Beck, 1989; Kuiper, Olinger, McDonald, & Shaw, 1985; Nelson & Craighead, 1977; McDowall, 1984; Oliver & McGee, 1982). Beck’s notion of the "cognitive triad"—negative schemata involving perceptions of the self, world, and the future—has also been supported empirically (Derry & Kuiper, 1981; Hammen & Krantz, 1976; Kuiper & Derry, 1981; Norman, Miller & Dow, 1988; Riskind & Rholes, 1984; Rush, Weissenberger, & Eaves, 1986). All of these studies support the notion that depression can be conceptualized as a primary disorder of thought with subsequent disturbance of affect and behaviour in consonance with the cognitive distortions.

Although stressful events and depression are related, the correlation between the two is only mild to moderate (Wise & Barnes, 1986). The presence of a stressful event per se is not sufficient to produce subsequent depressive symptomatology. Recent research has focused on the roles of life events, cognitive style and coping behaviours and how they interact in various ways to precipitate the onset of
depressive symptomatology (Billings & Moos, 1982; Hickox, 1985; Nicholson, 1986; Olinger, Kuiper & Shaw, 1987; Wise & Barnes, 1986). Whether or not an individual experiences a depressive reaction will depend upon their perception of the event (Hammen, et. al., 1985; Kuiper, et. al., 1988; Lazarus & Folkman, 1984; Robins & Block, 1988), the self-relevance of the event (Hammen, et. al., 1989), the chronicity and controllability of the event (Gannon & Pardie, 1989), individual coping skills and coping style (Billings, Cronkite, & Moos, 1983), social support (Swindle, Cronkite, & Moos, 1989) and initial symptom level to name a few things (Hammen, Mayol, deMayo, & Marks, 1986; Grant, Patterson, Olsen, & Yager, 1987). Following a stressful event, a depressive reaction is more likely if the event is perceived as threatening, chronic, uncontrollable, and self-relevant, and if the individual has insufficient coping skills, little social support, and/or previously existing depressive symptomatology.

Cognition then is believed to play a role in the emotional responses to stressful events, and the etiology of depressive reactions is viewed as being mediated by cognitive factors (Brown, 1979; Hickox, 1985). Thus, life events are stressful to the extent that an individual perceives them as threatening and interprets them in a negative manner. This then cues the subjective psychophysiological stress response, including but certainly
not limited to both the affective and behavioural manifestations of depression (Hickox, 1985).

In terms of the impact of negative life events on depressive reactions, research has shown that the individuals perception of the event is crucial to understanding this person-environment interaction. Kuiper and his colleagues (1988) found that dysfunctional, negative schema influence the impact of negative life events on depression. Specifically, the authors maintained that dysfunctional attitudes serve as a "vulnerability marker" for depression in that vulnerable individuals more closely monitor events that are relevant to their dysfunctional attitudes more than non-vulnerable individuals. These individuals are fulfilling the self-esteem contingencies of their dysfunctional attitudes and, if an event is perceived as threatening to one's self-esteem, subsequent depression is more likely. For example, if an individual believed "If I fail at my work then I am a failure as a person", and they reported having had a "recent failure experience", it was significantly more likely that they also reported feeling depressed (Kuiper, et. al., 1989; Olinger, et. al., 1987).

Kelly's personal construct model proposes that depressive affect stems from an inability to understand events and anticipate the future. This results from the cognitive processes of preemption and constriction whereby the individual narrows the applicability of their constructs
and/or limits the number of constructs used (Kelly, 1955; Neimeyer, 1983, 1985). In the face of stressful events, a depressive reaction may be manifest when a person feels threatened and seeks to maintain control through a narrowing and rigid application of that person's constructs (Neimeyer, 1985). By limiting the number of constructs used, the depressed individual tends to perceive events in an unvarying stereotyped manner (Patterson, 1986). Thus, when individuals are experiencing depressive affect, their ability to extend themselves into the future and elaborately conceptualize it is compromised (Neimeyer, 1983). The constriction characteristic of depressed individuals has been well-documented (Neimeyer, 1983, 1985; Ross, 1985; Space, Dingemans & Cromwell, 1983).

In contrast to the process of constriction, the constructivists' perspective emphasizes man's fundamental need to organize and interpret the world in order to anticipate future events. This need expresses itself through the course of human development as a continual process of accommodating our constructions in order to "fit" with the realities of our environment. Kelly referred to this process as an ongoing "dilation" of awareness or "broadening of the perceptual field in order to reorganize it at a more comprehensive level".

The process of dilation entails a certain amount of anxiety, "the recognition that the events with which one is
confronted lie outside the range of convenience of one's construct system". When faced with this threat, Kelly (1955) reasoned that the individual could respond by (a) living with the anxiety for a short time, (b) crawling back in his shell for a short time, or (c) immediately doing something about his constructs. If the individual chooses to crawl back into his shell for a short time he is using constriction. Essentially, the individual places out of psychological bounds any event(s) which may potentially increase the risk of further invalidation to his or her construct system. At the point where the individual "shows withdrawal tendencies on all fronts", this is depressive constriction.

In Lazarus', Beck's, and Kelly's work, the emphasis shifts to the appraisal processes, coping skills and psychological resources of the individual. These conceptualizations recognize that the individual does not passively acquiesce to the occurrence of negative events. Empirically, the task also shifts to identifying individual variables that mediate the impact of negative life events and daily hassles on psychological and physical health. Any endeavour to delineate such variables must inevitably start by considering recent developments in the theoretical concept of "self", and the implications of these developments on psychological adjustment.
Individual Differences and Adjustment

The "self" is a concept that has proven to be difficult to define (Bannister, 1983). Early conceptualizations viewed the self as a unitary entity, while modern perspectives on the "self" advocate that it is actually a "system of selves" (Doster & Watson, 1987; Mair, 1977a). The notion of oneself as a "community of selves" can be readily elaborated by some people to incorporate three, four, or any number of "selves". Some of these selves will be found to persist and others may be more transitory, some will be "isolates" and others will work in "teams", some will appear in many circumstances and others on only a few special occasions, some will be more powerful and others will gave way to them. (Mair, 1977a, pp. 131).

Knowledge about the self is represented in cognitive structures referred to as self-aspects (Linville, 1985, 1987), core role constructs (Bannister, 1983; Mair, 1977a), or self-schemata (Markus, 1977). The self is multifaceted and knowledge about oneself can be represented in several ways such as a) in various social roles and relationships, b) as liking various activities, and/or c) as having various traits or characteristics (Linville, 1987).

Self-aspects, constructs, or self-schema are not isolated or independent of one another. Rather, it is
assumed that they are structures in a larger associative network: the self-system. The self-system may differ in terms of the number of aspects and the degree to which differentiations are made among these aspects, with more independent self-aspects reflecting a more complex self-system (Doster & Watson, 1987; Linville, 1985, 1987; Mair, 1977a). Theoretically, the structure of one’s self-system has important implications for one’s perception and anticipation of events as well as one’s emotional and behavioural responses to these events (Kelly, 1955). Several lines of research on individual differences and psychological adjustment have looked at how the structure of representational self-knowledge influences adjustment (Angelillo, Cimbolic, Doster, & Chapman, 1985; Bieri, 1955; Hickox, 1985; Landfield & Barr, 1976; Linville, 1985, 1987; Nicholson, 1985). Linville’s research on "self-complexity" examined the hypothesis that self-complexity plays a buffering role in the relationship between stressful events and depression (Linville, 1985, 1987).

**Self-Complexity.** Self-complexity is defined as "having a greater number of self-aspects that are relatively independent of each other" (Linville, 1985). Linville developed a model relating complexity of self-presentation to affective and cognitive responses. The basic premise of her model is that the less complex an individuals’ cognitive representations of the self, the
greater will be the emotional and cognitive responses following a negative (or positive) event. Her model consisted of four assumptions. First, the self is cognitively represented in terms of multiple self aspects. Second, self-aspects vary in the affect associated with them. Third, people differ in the degree of complexity of their self-representation. Finally, overall affect and appraisal are a function of the affect and appraisal associated with different aspects of the self (Linville, 1985).

Linville argued that individual differences in the stress-response are due, in part, to differences in the complexity of one's self-construal. When an individual experiences a negative event, the self-aspect most relevant to that event is activated and negative thoughts and feelings from the event are likely to be associated with that self-aspect. If other self-aspects are closely related to the first aspect, these aspects are also activated, and negative thoughts and feelings are associated with these aspects as well. Linville (1985) refers to this as the "spillover" process. When an individual's self-system has few self-aspects that are undifferentiated, a stressful event in one aspect tends to "spill-over" and colour the thoughts and feelings of other aspects.

Self-complexity serves as a protective factor and moderates the impact of stressful events on both
psychological and physiological functioning. Assuming that an individual has a highly complex self-system, the emotional impact of a negative event will be moderated because a) the one independent aspect that is activated and affected represents a small proportion of the individual's whole self-system and b) less "spill-over" is likely due to the fact that other unrelated self-aspects are not activated.

Linville (1987) offers an example of how self-complexity can moderate the negative emotional impact of a divorce.

Consider the example of a woman going through a divorce. Assume that she has a simple self-representation with only two important self-aspects, wife and lawyer. Furthermore, assume that these two self-aspects are closely associated in memory, perhaps because her husband is also an attorney with whom she has shared many professional experiences. In this case, the negative affect and self-appraisal associated with her divorce will be massive because it will spill over to affect her thoughts and feelings about both important aspects of her self. In contrast, consider a woman with a more complex self-representation that involves several important self-aspects, for example, wife, lawyer,
tennis player, friend. Furthermore, assume that the self-aspect wife is not closely associated in memory with other self-aspects. In this case, negative affect and self-appraisal associated with the divorce are less likely to spill over and adversely affect her feelings about other self-aspects. Thus, there will be three unaffected self-aspects to buffer against negative feelings associated with the divorce. (p. 663)

Linville (1985) assessed 59 college men on the complexity of their self-concepts. Specifically, she asked them to sort 33 traits, each typed on a separate card, into any number of groups that described the aspects of themselves. A subject might sort "relaxed", "reflective", "lazy", and "quiet" into a pile reflecting the "solitary self" and "lazy", "impulsive", "unorganized", and "not studious" into a pile representing the "bad self". The more groupings the subjects produced, the more complex their self-concept was considered to be. Subjects were also rated more highly on self-complexity, when traits were not placed in more than one pile.

After completing this task, subjects took a bogus task of "analytical ability" where half were given success feedback and half were given failure feedback. The men with the less complex self-systems displayed more affective reactivity depending on the situation - they felt worse
after failure and better after success. In a second study, Linville (1985) found that college women with simpler self-concepts experienced wider mood swings over a two week period than did women with more complex self-concepts. People with simpler self-concepts seem to display more volatile emotional reactions than people with more complex self-concepts. By implication, people who have simpler self-concepts are more likely to become depressed after receiving negative information about themselves.

Linville (1987) measured the self-complexity of 106 college students and also obtained measures of their stress levels, physical symptoms of stress, and psychological symptoms of stress. These data indicated that high levels of stress were related to higher levels of symptomatology in individuals who were low in self-complexity, as compared with individuals high in self-complexity. Similar to Linville's argument that complexity of self-presentation acts as a cognitive buffer against stress-related depression, research in personal construct theory has begun to focus on the organization of an individuals construct system and its' relationship to overall adjustment.

Construct Organization and Adjustment

The Personal Construct Theory of George Kelly (1955) provides an additional and alternative approach to understanding the mediating role cognitive processes play in coping and adjusting to stressful life experiences. An
important notion of his theory is that the ways in which man interprets and construes events are always subject to change or replacement. The metaphorical stance of Personal Construct Theory is one of "Man as Scientist"--life is viewed as a process of proving (validating) or disproving (invalidating) hypotheses while revising one's perspective, both content and organization of one's constructions, all the while (Patterson, 1986).

Kelly believed that, as a result of their developmental history, individuals create unique construction systems composed of interconnected, dichotomous constructs. It is with the aid of this construct system that we are able to represent, interpret, react to, and act upon events within our world (Rasile, 1989). Emotionality is conceptualized as a reaction to or anticipation of an event(s) that does not "fit" with our understanding of the world where the event itself is likely to have a substantial impact on our sense of self and the world. Thus, life events are only threatening to the extent that they are construed as such.

The organization corollary of Kelly's theory (1955) holds that, "Each person characteristically evolves, for his convenience in anticipating events, a construction system embracing ordinal relationships between constructs" (p. 56). Kelly elaborated on this by explaining that a person makes choices and acts in ways in which he/she can anticipate the greater amount of possibility. As daily events unfold and
an individual gains new experiences, their construct system is subject to continual invalidation, and with invalidation comes the necessity of reevaluation of one's construct system. In terms of negotiating stressful events, the implication is that the more complex or differentiated system would be less subject to both invalidation and subsequent re-evaluation, as there would be a greater number of alternatives from which to choose (Hickox, 1985).

**Cognitive Complexity.** Bieri (1955) was the first to coin the term "cognitive complexity", which was essentially defined as the degree of differentiation of the construct system. Highly differentiated systems are more complex than less differentiated systems. It was believed that the more complex the individual was, the greater their predictive ability and the smaller the likelihood of emotional upset. Complex individuals are more flexible and adaptive, due to fact that they have available to them a more extensive repertoire of coping behaviours. Relatively more simple individuals, having fewer and more stereotyped behavioural response sets, are viewed as more rigid and will have more trouble in interpersonal exchanges and situations requiring adaptive behaviour (Nicholson, 1985).

Research in personal construct theory has in fact shown that the structure and complexity vs. simplicity of the construct-system is related to emotional adjustment (Angelillo, Cimbolic, Doster, & Chapman, 1985; Bieri, 1955;
Hickox, 1985; Landfield & Barr, 1976; Nicholson 1985; Payne & Beatty, 1982). Using the REPgrid, a measure of the organization of the individual's construct system (FIC) can indicate how interrelated and independent one's constructs are. Essentially, the REPtest asks the respondent to compare and contrast various "elements" (e.g., relatives, friends, and acquaintances), thereby eliciting certain bipolar descriptions of significance to the respondent in organizing his or her perceptual world (Neimeyer, 1983). If an individual represents knowledge about themselves in very discrete ways, he/she is said to have a complex system; while the individual who structures this knowledge in closely related ways has a relatively simple system.

Payne and Beatty (1982) addressed this issue by investigating the relationship between cognitive complexity and innovativeness. These researchers defined innovativeness as a tendency to create and accept novel ideas, and it was found to be positively correlated with cognitive complexity. The highly complex individuals perceived a greater number of advantages in new ideas, demonstrated greater adaptability in handling inconsistencies in these ideas, viewed ideas in simpler terms and required fewer trials in implementing these ideas. One inference that Hickox drew from this data concerned the individual's coping responses; i.e., individuals who are high in complexity are more efficacious at adjusting to
stressful events given their ability to create and implement novel and diverse coping strategies (Hickox, 1985).

Hierarchical Integration of Constructs: Landfield and Barr (1976) argued that just because a system was complex (had a large number of unrelated constructs) it was not necessarily adaptive. They argued that one must also consider the relatedness among constructs. The mere number of constructs does not necessarily ensure meaningful integration (Langley, 1971; Zimring, 1971). An individual with a highly complex system will have difficulty thinking in a systematic, ordered fashion because of the relative absence of relationships between his constructs. This system would be complex but would lack the integration needed to enact effectively. A second aspect of one’s cognitive structure—cognitive integration—must also be considered. Angelillo (1985) explains this distinction clearly.

Whereas complexity refers to the degree of differentiation reflected by the number of unrelated constructs, integration refers to the use of acquaintances and constructs at different levels of meaningfulness, addressing the ability to make discriminations within constructs; whereas complexity pertains to relationships between constructs, integration pertains to differentiation within a construct. (p.7)
Landfield and Barr (1976) chose the term ordination to refer to the latter concept. They believed that the ability to make discriminations within one's complexities leads to the enhanced probability of systematic thought and effective decision making. In psychopathology research, both extremely differentiated and undifferentiated systems can be viewed as problematic (Landfield, 1980). On the one hand, the overly differentiated individual may tend to construe events, other persons, and even the self in fragmented terms, depriving their experience of a sense of coherence and meaning. On the other hand, the massively undifferentiated person may construe things so globally that much subtle information about the social environment is lost. These extremes in construct system structure have been associated with schizophrenic thought disorder and obsessive compulsive disorder respectively (Neimeyer, 1985; Patterson, 1986; Phillips, 1981). The most adaptive system would thus be one that was both complex and integrated.

In a study designed to test this hypothesis, Landfield and Barr (1976) assigned subjects to one of four ten-member groups. Two groups consisted of college students and two were made up of individuals who had been arrested for driving while intoxicated. The plan was to have group members interact primarily in dyads, rotating the pairings so that each person conversed with every other group member. After all pairings had taken place, subjects rated all
group members, including themselves, on the REPgrid. Measures were also taken of subjects' ability to predict the views of others accurately within their own construct system. Subjects were then divided into four quadrants, based on their complexity and integration scores from the REPgrid. Quadrant One was low integration/low complexity, quadrant two was high integration/low complexity, quadrant three was low integration/high complexity, and quadrant four was high integration/high complexity. Results revealed that, in terms of predicting others, subjects in quadrant four were best, followed by quadrants 2, 1, and 3. In terms of how well others predicted them, 1 was easiest, followed by 2, 4, and 3. Group leaders who observed subjects interacting generally described people in quadrant 1 as "lacking in richness of perspective", 2 as "being well-structured and able to relate well", 3 as "antagonistic, fussy, scattered, confused, and suspicious", and 4 as "strong, level-headed, and well-organized". The researchers' original hypothesis, that both complexity and integration were important factors in adjustment, was substantiated.

Measuring life-stress, adjustment, depression, cognitive complexity and cognitive integration in college students, Hickox (1985) found that students with higher integration scores had lower depression scores, when stress level was controlled using covariance. She hypothesized that the high integration scorers were better prepared to
cope with current stressors because their superior organization helped them cope with stressors in the past.

Nicholson (1985) followed up on Landfield and Barr's original theory by studying the relationship between cognitive organization and psychological adjustment in a clinical population. Subjects in this study were psychiatric inpatients on either the acute or substance wards. Subjects measured to be highly complex but poorly integrated were found to have the most serious pathology, as reflected by the F and clinical scale elevations on the MMPI. However, unlike Landfield and Barr's findings, subjects measured to be high in both complexity and ordination were not any better adjusted than either subjects low in complexity and high in integration or subjects low in both complexity and integration. Nicholson attributes this lack of findings to the fact that Landfield and Barr's measure of adjustment was the clinical opinion of research assistants. While differences in group adjustment were clinically noticeable in Landfield & Barr's study, they may not have been significant enough to appear on the MMPI, as was necessary in Nicholson's study. Further, the lack of findings may have been due to differences in the nature of the samples—college students versus psychiatric inpatients (Nicholson, 1985).

All of these studies seem to indicate that cognitive organization is in some way related to adjustment. The
nature of this relationship, however, is still quite unclear. One possibility is that the organizational characteristics of an individual’s construct systems influences the development of behavioural skills that directly enhance one’s ability to manage stress.

Coping With Stress

Individual differences in stress responsivity have been posited to be determined by three factors (a) one’s appraisal of the significance of the event, and whether there has been a prior experience with a similar event; (b) personality attributes such as self-esteem and control expectations; and, (c) coping response patterns selected to deal with problems (Krohne, 1986). Theoretical definitions of coping have recognized four common characteristics of coping. First, coping is viewed as a process rather than the goal of an act. Second, the process of coping involves both behavioural and cognitive acts. Third, the acts of coping focus on demands that are experienced as taxing or even exceeding his/her capacities. These demands can be internal, e.g., emotions, or external, e.g., noise. Finally, the general aim of coping is to remove the imbalance between demands and capacities (Krohne, 1986).

In general, coping consists of efforts, both action-oriented and intrapsychic, to manage (i.e. master, tolerate, reduce, minimize) environmental and internal demands and conflicts among them (Lazarus & Folkman, 1986). In a
comprehensive review, Matheny et. al. (1986) identified 17 qualitatively distinct categories of coping behaviours that were more or less effective in stress management, and concluded that coping must be conceptualized as a multifaceted process.

Coping strategies have been examined in terms of two types of coping: (a) problem-focused coping which entails attempts to alter one's behaviour or environmental conditions; and (b) emotion-focused strategies which involve attempts to reduce emotional stress and regain a sense of affective equilibrium (Billings & Moos, 1982; Coyne, Aldwin, & Lazarus, 1981). Adjustment to stressful experiences usually requires both types of coping (Lazarus & Folkman, 1984). Further, different types of coping are more effective than others depending upon the stage of the stressor (i.e., alarm, resistance, exhaustion), the type of stressor experienced, and whether or not the stressor can be objectively eliminated (Wing Sue, 1986). The competent coper is one who uses problem solving strategies when something can be done to change environmental factors that brought on the stress, and emotion-focused strategies to soothe their feelings when nothing can be done (Lazarus & Folkman, 1984).

Applying for a loan to pay overdue bills is an example of problem-focused coping. A person may also seek information to deal with a problem, for instance, someone
may learn how to do basic automobile repairs on a car that continually breaks down. People tend to use problem-focused coping when they believe that there is something that they can do about the stressful situation they face (Lazarus & Folkman, 1984).

When faced with a relationship breakup, a person may try to cope by focusing on distracting day-to-day activities. The emotion-focused response may also involve cognitively reevaluating the situation, seeking support and reassurance from others, trying to accept the situation if nothing can be done, and discharging emotion (Lazarus & Folkman, 1986).

Coping and Depression

Coping can influence stress-related illness and depression in that it may involve changes in health-related behaviours such as smoking, drinking, etc. To the extent that coping plays a role in stress-related mental and physical health outcomes, treatments have begun to focus on developing an individuals coping skills. Due to the complex demands of life, treatments that teach a more comprehensive set of coping skills may often be preferable to treatments that teach a single coping skill, e.g., relaxation (Beck, Rush, Shaw, & Emery, 1979; Coyne & Holroyd, 1982; Greenberg, 1990).

Rhode, Lewinsohn, Tilson, & Seeley (1990) studied various dimensions of coping behaviours and their
relationship to depression. The dimension "Ineffective Escapism" was highly correlated with future depressed mood, and "Solace Seeking" appeared to buffer against stress-induced depression. It was found that depressed individuals used significantly more ineffective, escapist behaviours (e.g., self-isolation, drinking) and fewer solace seeking behaviours (e.g., talking with friends, family) than non-depressed individuals. These researchers concluded that avoidant, passive, and/or reckless behaviours represented a vulnerability to later depression in that these behaviours were highly predictive of future mood.

Similar findings appeared in earlier research where the role of stress and coping behaviours in depression was explored (Parker & Brown, 1982; Parker, Brown, & Blignault, 1986). It was found that depressed persons differ significantly from a matched control group on the presence and severity of environmental stressors, types of coping responses, and amount and quality of social resources. Further, after removing the effects of stress, differences between groups were still consistent and significant. Depressed individuals were less likely to use problem-solving and more likely to use emotion-focused ways of coping than non-depressed individuals. Again, problem solving techniques involve trying to find out more about the situation and obtaining guidance from social network members and/or taking specific action to deal with the situation.
Emotion-focused techniques involve direct efforts to control stress-related emotions by suppressing impulsive acts, experiencing and resolving feelings, and/or indirect efforts to reduce tension such as eating, smoking, drinking, etc.

Billings & Moos (1981) found that women engaged in more avoidance behaviours, and the buffering effects of social support on stress-related emotions were also more pronounced for women than for men. The reciprocal nature of these phenomena—avoidant behaviour and few social resources—was recognized by the authors. Further, it was recognized that ineffective coping behaviour could be both a cause and a consequence of environmental stress (Billings & Moos, 1983).

To summarize this review of the literature, there are several findings that are pertinent to the present investigation. The stress response appears to be mediated by an individual's evaluation of an event, and this evaluation may be dependent upon self-complexity. Specifically, the complex person will not be as threatened by an event due to the fact that a) the situational threat will not "spillover" onto other self-aspects (primary appraisal) and b) the complex person likely has available to them a variety of coping responses to deal with the situation (secondary appraisal). Finally, in terms of coping behaviour, depressed individuals have been found to differ from non-depressed individuals in that they utilize only a few, rigid and ineffective coping responses.
In an attempt to conceptually and empirically integrate these findings, the present research attempts to delineate the relationship between self-complexity and coping behaviour by addressing several of the previously mentioned issues. Assuming that self-complexity is in fact a cognitive buffer against stress-related illness and depression, it follows that highly complex individuals would display a greater variety of coping behaviours. The present study was an attempt to address several of the previously mentioned issues. A community of selves REPgrid procedure was used to investigate the following hypotheses:

Hypothesis One

The main hypothesis of this study concerns the relationship between self-complexity and coping behaviour. Specifically, it was predicted that there would be a positive correlation between self-complexity and coping behaviour. The measure of self-complexity used in the present study was the ORD score, due to the fact that the Community of Selves REPgrid procedure requires subjects to rate various "selves" as opposed to other people. Thus, the ORD score in this procedure measures the average amount of differentiation among the selves. ORD scores in this study refer to intraself complexity, and FIC scores refer to interself complexity.
Hypothesis Two

It was predicted that there would be a negative correlation between self-complexity and current level of negative affect.

Hypothesis Three

There are two parts to the third hypothesis. First, it was predicted that (a) more hierarchically integrated selves would utilize a variety of coping behaviours and (b) these selves would report that the impact of hassles as being lower for that particular self compared with relatively simple selves.

Hypothesis Four

It was predicted that selves judged to be "in trouble", based upon independent ratings, would have fewer coping skills associated with them.

Hypothesis Five

It was predicted that selves judged to be "in trouble", would have more negative affect associated with them.

Hypothesis Six

It was predicted that depressed individuals would utilize more emotion-focused or ineffective escapism behaviours.

Hypothesis Seven

It was predicted that depressed individuals would rate the overall effectiveness of their coping behaviours as lower.
METHOD

Subjects
The subject population used in this study consisted of 40 females currently attending the University of North Texas who received extra credit for their participation. The age of subjects ranged from 17 to 46 (Mean = 24.3). Education level in years ranged from 12 to 17 years (Mean = 14.9). The majority of the sample was caucasian, except for one hispanic and two black participants.

Measures

Self-complextity. The measure used was the Community of Selves procedure developed by Doster and Watson (1987). The Community of Selves evaluation involved a two-step procedure. In step one, individuals were administered a variation of Landfield's (1971) modification of Kelly's (1955) Role Construct Repertory Grid (Appendix C). This variation essentially permitted its use as a self-grid by including 15 prospective members of their community of selves. The subjects were supplied with 10 constructs taken from past research using supplied constructs (Adams-Weber, 1985). The individual then completed the grid by using the 10 supplied constructs and a 13-point bipolar rating scale
to describe each of 15 prospective members of their community of selves. The list of possible selves were relevant to both intrapersonal and interpersonal transactions. The choice of selves was the same as those used by Doster and Watson (1987), who wanted to address the broader range of transactional experiences across diverse social contexts. These choices reflected differentiations among selves already described in the literature to date (Markus & Nurius, 1986; Markus & Wurf, 1987). The selves were designated in terms of intrapersonal and interpersonal responsibilities and functions rather than being merely descriptive. For example, if the person had a self who served as "critic", they were asked to elaborate on their experience of themselves in this way both alone and with other people, and how this was similar or different from experiences of other selves.

The two scores derived from computerized scoring that were used in the data analysis were the Functionally Independent Construction score (FIC) and the Ordination score (ORD) (Landfield & Cannell, 1988). The FIC score is considered to be a measure of cognitive differentiation and the ORD score is a measure of hierarchical cognitive integration; both are measures of cognitive organization (lateral versus vertical, respectively). These measures have been shown to have adequate reliability (Nicholson, 1985). Due to the fact that subjects were asked to rate
various selves, the score used to measure the complexity of
a self in the present study was the individual ORD score.
The overall ORD score in this study measures the average
degree of differentiation within the selves.

ORD is a way of determining the variation in rating scale polarization as the person rates the elements (selves). If we want to obtain the ordination score of a particular self described by the subject, we observe how he has rated that person across his descriptive construct dimensions. If the person has used four different levels of polarization or extremeness, e.g., scale points 1, 2, 3, and 5, these four levels are multiplied by the difference between his highest and lowest ratings, e.g., 4. and thus the ordination score is 16. If we want to know the ordination level of a particular descriptive construct, e.g., humorous vs. dull guy, we note how the subject has rated his selves on this construct. Again, the number of rating levels used is multiplied by the high-low rating difference.

In summary, the ordination score for a rated self or for a descriptive construct encompassed the number of levels and range of meaningfulness. The final self-ordination score, ORD, was found by averaging the different self ordination scores. The highest possible average ordination score for selves is 30. Therefore, the upper limit for the combined score will be 60.
FIC refers to the number of selves and independent dimensions found on the REPtest. This analysis begins by defining each descriptive construct dimension, e.g., gentle vs. hard, by the row rating pattern opposite the construct, e.g., +1 -3 0 +2 -4, etc. The minus sign designates left side ratings of the scale (6 to 1). The plus or absence of the negative sign designates right side ratings (1 to 6). Zero designates the mid-point of the 13 point scale (6 to 0 to 6).

Coping Skills Index. This measure was a modification of a coping skills index developed by Parker & Brown (1982) (Appendix E). Subjects were asked to indicate the extent to which they engaged in various coping behaviours to deal with stress in their lives. For instance, subjects were asked "Do you listen to music to cope with stress?". If a subject answered yes, they were asked to rate 1) Which self from their community of selves was most likely to act this way (which one is implicated) and 2) how effective was this method of coping. This provided indices of 1) The number of coping skills associated with each self and 2) The perceived effectiveness of coping strategies. The questionnaire had a total of 41 items. Parker and Brown (1982) rated all items as being either "positive" or "negative" and these ratings were used in the present study, yielding a total of 23 positive and 18 negative behaviours. In this way, the use
of positive and negative strategies could be examined separately. The following scores were obtained:

Total: Total number of coping strategies utilized by the individual.
Positive: Total number of positive coping strategies utilized by the individual.
Negative: Total number of negative coping strategies utilized by the individual.
Effectiveness: Average effectiveness of coping strategies (Sum of effectiveness ratings divided by number of strategies).
Effect Positive: Average effectiveness of positive coping strategies.
Effect Negative: Average effectiveness of negative coping strategies.
Self score: Number of coping strategies utilized by a particular self.
Self effectiveness: Average effectiveness of each self's coping strategies.

Perceived Stress. The measure used was a modification of the Daily Hassles Scale—a questionnaire covering aspects of life that are troublesome (Kanner, et. al. 1981). Items were removed that were redundant (i.e., "not enough money for food" and "not enough money for clothing" were condensed into "financial considerations") or appeared to be confounded with stress-related symptomatology (i.e., "poor
Subjects responded first by indicating which hassles they had experienced, and which "self" was most hassled by this. They were also asked to rate the severity of the impact of the hassle (somewhat, moderately, or extremely severe). 20 items were removed and 1 item added to the original scale, leaving a total of 86 items. Separate indices of both the number and perceived severity of stressors were calculated as both have been found to be independently as well as jointly associated with psychological stress (Reich, Parella, & Filstead, 1988). The following scores were obtained:

- **Total**: Total number of hassles experienced.
- **Severity**: Average severity of hassles experienced.
- **Self-Impact**: Average severity of hassles experienced by individual selves.

**Psychological Adjustment.** The Self-rating Depression Scale (SDS) (Zung, 1965) is a 20 item measure of common characteristics of depression based on three content areas: pervasive affect, physiological equivalents, and psychological concomitants. The items are worded so that ten of them are symptomatically positive and ten symptomatically negative. Subjects were instructed to respond to the items based on how they felt at the time of testing.

The SDS was scored by assigning a value of 1, 2, 3, or 4 to each item, depending upon whether the wording was
positive or negative. A rating of 1 reflected minimal symptomatology while a rating of 4 reflected significant depressive symptomatology. An index score was obtained by summing all values and dividing by 80, the maximum possible score. An SDS index below 50 indicated the absence of depression, while any value above this was interpreted as indicative of depressive symptomatology (Zung, 1978, 1979).

Rating Of Selves. This followed the format of a brief, unstructured interview. Subjects were asked to consider each of the members of their community of selves and talk about how they felt about each self (i.e., How is this self doing? How do you feel about this self? Do you like this self?)

Subjects responses were coded along the following dimensions by two independent raters:

1) How well is this self doing?
   In trouble      Fine      Excellent

2) How would you rate this self in terms of the amount of depression associated with it?
   1.....2.....3.....4.....5.....6.....7.....8.....9.....10

   not at all     somewhat    considerably    extremely
depressed       depressed    depressed    depressed

Procedure

Subjects were run individually during scheduled appointment times. After an explanation of the study, they were asked to sign and date an informed consent and complete
a background and history form (Appendices A & B). The examiner then explained and administered an assessment battery following an interview format. The battery included measures of self-complexity (REPgrid) and self-ratings, coping skills (Coping Index), perceived stress (Daily Hassles Scale), and psychological adjustment (Self-Rating Depression Scale). The following instructions were given with each measure during the interview:

**Role Construct Repertory Grid.** "Across the top of the grid you see there are fifteen different "selves" listed. These can be conceptualized as different ways in which you perceive yourself. To get a better understanding of what these selves represent and how they function, I want you to think of a time when you perceived yourself as "vulnerable"; a time when you perceived yourself as "spiritual", and "protective", and "critical" etc. Think about what the situation was like, who you were with, etc. You may write these descriptions down if you like (paper will be provided). For instance, you may have perceived yourself as vulnerable when an important relationship broke up, spiritual when you attended a wedding, protective when you were babysitting a young child, discovering when you moved to a new area, etc. If you cannot think of a situation in which you perceived yourself in a specific way, think of a hypothetical time (in the future) when you might feel or perceive yourself in that way.
Now look at each construct pair and consider what each "self" is like in terms of these descriptive dimensions. For instance, your Vulnerable self may be somewhat stingy, so you would rate it a -2; very unpleasant (-5); somewhat active (+3); very hard (+6), etc. Go down each column and rate each "self" on the descriptive dimensions.

Coping Skills Index. "There are many ways which different people deal with or attempt to manage stress. I am interested in how you deal with stress. I would like you to think about how often you engage in various behaviours to deal with stress, how effective each one is, and, finally, which "self" is most likely to engage in these behaviours. For instance, your Vulnerable self may be very likely to sit alone in the outdoors, your Sit Back/Big Picture self may be most likely to write prose or poetry, your Dreaming self may be most likely to listen to music, etc."

If subject never engages in behaviour the examiner moves on to next item.

Daily Hassles Scale. "We all experience stress in our lives and it affects each of us in unique ways. I would like to know how it affects you. First, I am going to go ask you if an event has happened to you in the past month. I then want you to think about which self is most threatened by that event. For instance, you may have troublesome neighbours, who are most threatening to your Get Things Done self. Finally, I want you to rate how severe each hassle
has been for you in the past month. The same troublesome
neighbours may have had an extremely severe impact on your
level of stress (extreme=3). A second example may be that
you have experienced loneliness at some time this month.
Your Affilial self may be the most threatened by this, but
the severity of it may not be that extreme (somewhat = 1).
A final example may be that you find yourself with too many
responsibilities. This may be most threatening to your
Playful self, and you rate the severity of this hassle as
moderate (moderate = 2).

**Rating of Selves.** "I now have some idea of how you
view yourself. One final thing I would like to do is to
find out how each self is doing. Let's go through each one
and I'd like you to tell me what you think and feel about
this aspect of yourself? Consider how that self is doing.
Does it need help or can it help other self-aspects?"
(Subjects were encouraged to freely express whatever came to
mind.)

**Training of Raters.** One male and one female rater
participated in this part of the study. Each of the raters
was trained in one session. The raters were guided through
an example of how to rate the subjects' descriptions of
their individual selves, and were given examples of
statements reflecting ratings of "In Trouble", "Fine", and
"Excellent". For example, raters were instructed to rate a
self as "Excellent" if the subject said things such as "I
really like this part of me", "This self can help my other selves", etc. A self was rated as "In Trouble" if the subject said things like "I don't like this part of me", "I would like to change this or get rid of it", etc. A rating of "Fine" was given to statements such as "This self is o.k.", "It's not great, not bad, just there", etc. Once raters fully understood the instructions, they each rated the entire sample of subject responses.

Upon completion of the interview, subjects were debriefed and provided with the opportunity to discuss any concerns that might have arisen during the interview.
CHAPTER III

RESULTS

The present results were obtained using an all-female college student population. While several of the analyses involved the relationship between depression and other variables, labels of "depressed" and "non-depressed" may be misleading in the clinical sense. Thus, the terms dysphoria, symptomatic and/or non-symptomatic will be used, indicating that, in this particular sample, this variable refers to reports of the presence or absence of behaviours associated with depression.

Before any statistical analyses relevant to the hypotheses are reported, preliminary information on the data used in this study is in order, including frequency data. Table 1 provides summary statistics for age, years of education, self-rating depression score (srds), number of major stressors in past month (stress), number of daily hassles experienced in past month (hassles), perceived severity of hassles (severity), total on coping index (coping), total effectiveness rating on coping index (effective), ordination score, and functionally independent constriction score (fic).
Table 1

Summary Statistics of Sample

<table>
<thead>
<tr>
<th>Variable</th>
<th>Mean</th>
<th>S.D.</th>
<th>Range</th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>AGE</td>
<td>24.3</td>
<td>7.6</td>
<td>29</td>
<td>17</td>
<td>46</td>
</tr>
<tr>
<td>EDUCATION</td>
<td>14.9</td>
<td>1.2</td>
<td>5</td>
<td>12</td>
<td>17</td>
</tr>
<tr>
<td>SRDS</td>
<td>35.8</td>
<td>8.4</td>
<td>31</td>
<td>22</td>
<td>53</td>
</tr>
<tr>
<td>STRESS</td>
<td>4.9</td>
<td>3.4</td>
<td>13</td>
<td>0</td>
<td>13</td>
</tr>
<tr>
<td>HASSLES</td>
<td>21.9</td>
<td>10.0</td>
<td>50</td>
<td>4</td>
<td>54</td>
</tr>
<tr>
<td>SEVERITY</td>
<td>40.5</td>
<td>22.4</td>
<td>105</td>
<td>8</td>
<td>113</td>
</tr>
<tr>
<td>COPING</td>
<td>20.0</td>
<td>6.6</td>
<td>30</td>
<td>8</td>
<td>30</td>
</tr>
<tr>
<td>EFFECTIVENESS</td>
<td>44.1</td>
<td>16.3</td>
<td>77</td>
<td>17</td>
<td>94</td>
</tr>
<tr>
<td>ORDINATION</td>
<td>33.3</td>
<td>7.9</td>
<td>32.4</td>
<td>15.9</td>
<td>48.3</td>
</tr>
<tr>
<td>FIC</td>
<td>7.5</td>
<td>4.1</td>
<td>14</td>
<td>3</td>
<td>17</td>
</tr>
</tbody>
</table>

Hypothesis One

This hypothesis predicted that there would be a positive correlation between ordination scores and coping behaviour, as measured by the correlation between ordination scores and total scores on the coping index. A significant relationship was found ($r = .48$, $p < .001$). Thus, as intra-self complexity increases, number of coping skills also increases. This hypothesis was therefore accepted.

Further, when coping behaviours were grouped into positive and negative categories, the correlations were significant.
for both positive ($r = .37, p < .01$) and negative ($r = .38, p < .01$) behaviours. An additional correlation was computed between ordination scores and mean effectiveness ratings to see if higher levels of intra-self complexity were related to higher levels of perceived effectiveness of coping behaviour. A significant relationship was not found ($r = -.04, p > .05$). Subjects were grouped into high and low ordination groups with the overall mean being the cutoff score for group placement. Further analyses revealed significant differences in total number of coping strategies employed by low-ordination ($M = 17.5$) and high-ordination groups ($M = 22.04, t = -2.21, df = 38, p < .03$). No differences were found in the effectiveness ratings of the high ($M = 2.27$) versus low-ordination group ($M = 2.23, t = .42, df = 38, p > .05$). Table Two presents a summary of number of coping behaviours and effectiveness ratings for high and low ordination groups.

Additional correlations were computed between self-rated depression (srds), ordination (ord) and fic (fic) scores, number of major stressors in the past month (stress), number of hassles experienced (hassles), severity of hassles experienced (severity), and number of coping strategies (coping). These intercorrelations appear in Table 3. As can be seen, significant positive correlations were found among most variables, indicating strong relationships. In particular, the correlations between
Table 2

Coping Strategies and Effectiveness Ratings for High and Low Ordination Groups

<table>
<thead>
<tr>
<th></th>
<th>HIGH</th>
<th>LOW</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean Number of</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Coping Strategies</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>22.04</td>
<td>17.2*</td>
</tr>
<tr>
<td>Positive</td>
<td>15.7</td>
<td>13.0*</td>
</tr>
<tr>
<td>Negative</td>
<td>6.3</td>
<td>4.2*</td>
</tr>
<tr>
<td>Mean Effectiveness</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ratings</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Overall</td>
<td>2.27</td>
<td>2.23</td>
</tr>
<tr>
<td>Positive</td>
<td>2.51</td>
<td>2.47</td>
</tr>
<tr>
<td>Negative</td>
<td>1.58</td>
<td>1.38</td>
</tr>
</tbody>
</table>

*P < .05

depression, stress, and perceived severity are all significant, indicating that individuals who scored higher on the self-rating depression scale reported greater amounts of stress and perceived the severity of stressors as being greater than low-scoring individuals.

Due to the high intercorrelations among several of the variables, partial correlations were computed between ordination scores and coping scores, while holding the effects of hassles and self-rated depression constant. The initial correlation between ordination and coping (r = .48, p < .001) was not changed when self-rated depression was held constant. When the effect of hassles was held constant, the correlation decreased slightly (r = .41, p < .004) indicating that, although there is some shared
variance, ordination scores still account for a significant portion of the variance in coping scores.

Table 3

Intercorrelations Among Depression, Stress, Coping and Self-complexity Variables

<table>
<thead>
<tr>
<th></th>
<th>SRDS</th>
<th>STRESS</th>
<th>HASSLE</th>
<th>SEVERE</th>
<th>ORD</th>
<th>FIC</th>
<th>COPE</th>
</tr>
</thead>
<tbody>
<tr>
<td>SRDS</td>
<td>1.00</td>
<td>.46***</td>
<td>.42**</td>
<td>.12</td>
<td>.08</td>
<td>.08</td>
<td>.32*</td>
</tr>
<tr>
<td>STRESS</td>
<td>1.00</td>
<td>.65***</td>
<td>-.07</td>
<td>.26</td>
<td>.24</td>
<td>.41**</td>
<td></td>
</tr>
<tr>
<td>HASSLE</td>
<td>1.00</td>
<td>-.33**</td>
<td>.29*</td>
<td>-.21</td>
<td>.69**</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SEVERE</td>
<td>1.00</td>
<td>-.10</td>
<td>-.01</td>
<td>-.14</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ORD</td>
<td>1.00</td>
<td>-.19</td>
<td>.48**</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>FIC</td>
<td></td>
<td></td>
<td></td>
<td>1.00</td>
<td>-.18</td>
<td></td>
<td></td>
</tr>
<tr>
<td>COPE</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1.00</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*p < .05
**p < .01
***p < .001

Hypothesis Two

This hypothesis predicted that there would be an inverse relationship between ordination and FIC-scores and SRDS scores. There was not a significant correlation between the ORD scores and SRDS scores (r = .08, p > .05), nor between FIC scores and SRDS scores (r = .08, p > .05). There is no evidence that higher levels of
complexity and differentiation are related to lower levels of negative affect, and this hypothesis was rejected.

**Hypothesis Three (a)**

It was predicted that more hierarchically integrated selves would utilize a variety of coping behaviours. Individual analyses were performed to test this hypothesis. Correlations between each of the fifteen self-ordination scores and the number of coping strategies utilized by each self revealed significant relationships for only four subjects. Although this is greater than what would be expected by chance (at a .05 level, one would expect 2 significant correlations out of 40), as can be seen in Table 4, only one of the correlations is in the predicted direction. Three correlations are significant and in the negative direction indicating that, for these subjects, the selves that are more differentiated utilize fewer coping behaviours. This hypothesis was therefore rejected.

**Table 4**

**Individual Correlations Between Ordination Scores and Coping Strategies**

<table>
<thead>
<tr>
<th>Subject Number</th>
<th>Correlation</th>
</tr>
</thead>
<tbody>
<tr>
<td>12</td>
<td>-.52*</td>
</tr>
<tr>
<td>21</td>
<td>-.48*</td>
</tr>
<tr>
<td>33</td>
<td>-.60**</td>
</tr>
<tr>
<td>40</td>
<td>.51*</td>
</tr>
</tbody>
</table>

* $p < .05$
** $p < .01$
Hypothesis Three (b)

It was also predicted that the selves that were more differentiated would perceive the severity of the impact of hassles to be less than undifferentiated selves. Individual analyses revealed significant relationships between ordination scores and self-impact scores for the hassles experienced for six subjects. Of these, five were in the predicted negative direction as can be seen in Table 5. There was insufficient evidence to reject this hypothesis.

Table 5

**Individual Correlations Between Ordination and Self-Impact Scores**

<table>
<thead>
<tr>
<th>Subject Number</th>
<th>Correlation</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>.51*</td>
</tr>
<tr>
<td>8</td>
<td>-.48*</td>
</tr>
<tr>
<td>12</td>
<td>-.44*</td>
</tr>
<tr>
<td>22</td>
<td>-.56*</td>
</tr>
<tr>
<td>23</td>
<td>-.46*</td>
</tr>
<tr>
<td>30</td>
<td>-.57*</td>
</tr>
</tbody>
</table>

*p < .05

Hypothesis Four

Hypotheses four and five involved the use of raters' independent ratings of subjects' selves. Analysis of the
independent ratings of subjects' free associative
descriptions of themselves revealed that for 17 of the 40
subjects, inter-rater agreement was at or above 53%, and for
23 of the 40 subjects inter-rater agreement was at or above
60%. Thus, out of the fifteen selves that an individual
described, raters agreed on at least 10 out of 15 ratings of
how well each particular self was doing, e.g., "In Trouble",
"Fine", or "Excellent". One list of self-ratings from each
of the 23 pairs of self-ratings was randomly chosen for use
in the data analysis. For the 17 subject reports which
raters did not show agreement on at least 8 out of 15
ratings, a third rater was used to resolve the discrepancy,
and these ratings were used in the data analysis.

An additional inter-correlation between independent
ratings of the fifteen selves revealed significant
correlations for 12 of the 15 selves. The selves with
highest inter-correlations were the sensual, spiritual,
seeking, and affiliial selves, indicating greater agreement
between raters when asked to rate these selves. These data
are summarized in Table 6.

It was predicted that selves judged to be "In Trouble"
would have fewer coping skills associated with them. A one-
way ANOVA was performed using judges' ratings (trouble, fine,
excellent) as the independent variable and self-score on the
coping index as dependent variables. No significant effect
Table 6
Inter-correlations of Judge’s Ratings For Individual Selves

<table>
<thead>
<tr>
<th>Self</th>
<th>Inter-correlation</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vulnerable</td>
<td>.39</td>
<td>.005</td>
</tr>
<tr>
<td>Spiritual</td>
<td>.62</td>
<td>.000</td>
</tr>
<tr>
<td>Protective</td>
<td>.24</td>
<td>.071</td>
</tr>
<tr>
<td>Discovering</td>
<td>.29</td>
<td>.032</td>
</tr>
<tr>
<td>Critical</td>
<td>.29</td>
<td>.032</td>
</tr>
<tr>
<td>Get Things Done</td>
<td>.34</td>
<td>.015</td>
</tr>
<tr>
<td>Step Back/Big Picture</td>
<td>.40</td>
<td>.004</td>
</tr>
<tr>
<td>Sensual</td>
<td>.64</td>
<td>.000</td>
</tr>
<tr>
<td>Seeking</td>
<td>.56</td>
<td>.000</td>
</tr>
<tr>
<td>Moral</td>
<td>.20</td>
<td>.106</td>
</tr>
<tr>
<td>Dreaming</td>
<td>.13</td>
<td>.210</td>
</tr>
<tr>
<td>Playful</td>
<td>.35</td>
<td>.010</td>
</tr>
<tr>
<td>Sick</td>
<td>.38</td>
<td>.006</td>
</tr>
<tr>
<td>Affilial</td>
<td>.53</td>
<td>.000</td>
</tr>
<tr>
<td>Expert on Change</td>
<td>.32</td>
<td>.020</td>
</tr>
</tbody>
</table>

was found, $F = 1.71, p > .05$. Analysis of the means indicated that selves judged to be "In Trouble" did not utilize more coping behaviours ($M = 1.65$) than selves judged
to be "Fine" $(M = 1.16)$ or selves judged to be "Excellent" $(M = 1.52)$. Hypothesis four was therefore not accepted.

**Hypothesis Five**

It was predicted that selves judged to be "In Trouble" would have more negative affect associated with them. A one-way ANOVA was performed using judges ratings (trouble, fine, excellent) as the independent variable and depression ratings (of the other judge) as the dependent variable. A significant effect was found, $F(2, 599) = 42.72$, $p < .0001$, indicating that selves judged to be "In Trouble" had more depressive affect associated with them $(M = 7.03)$, than selves judged to be "Fine" $(M = 5.40)$, or "Excellent" $(M = 4.77)$. Hypothesis five was accepted.

**Hypothesis Six**

This hypothesis was essentially to replicate the finding that individuals reporting more depressed symptoms would utilize more emotion-focused and ineffective escapism behaviours than their counterparts. The coping behaviours that were included in this analysis are listed in Table 7. A Pearson correlation between self-rated depression and number of negative coping behaviours revealed a significant relationship ($r = .53$, $p < .001$), indicating that more symptomatic individuals engage in more negative behaviours to cope with stress, and this hypothesis was therefore accepted. Subjects were split into two groups falling above and below the mean (35.8). A t-test revealed that the more
symptomatic group utilized significantly more negative coping behaviours ($M = 7.1$) than the less symptomatic group ($M = 3.75$, $t = 3.59$, df = 38, $p < .001$). No differences were found in number of positive coping strategies used by each group ($M$ symptomatic = 14.15, $M$ non-symptomatic = 15.05, $t = .63$, df = 38, $p > .05$).

**Hypothesis Seven**

It was also predicted that, as has been found in past research, more dysphoric individuals would rate the effectiveness of their coping strategies as lower than individuals who were not dysphoric. A correlation revealed no relationship between level of reported symptomatology and effectiveness of coping strategies ($r = .06$ $p > .05$). This hypothesis was therefore rejected. A grouped comparison revealed the mean ratings of effectiveness to be similar for both groups ($M$ Symptomatic = 2.28, $M$ Non-symptomatic = 2.22, $t = .54$, df = 38, $p > .05$). When the effectiveness ratings for positive and negative behaviours were looked at separately, the level of depressive symptomatology was not related to effectiveness ratings of positive behaviours ($r = .06$, $p > .05$). An inverse relationship that was approaching significance was found between level of depressive symptomatology and effectiveness ratings of negative behaviours ($r = -.22$, $p = .08$). Thus, the individuals with higher self-rated depression scores rated negative
behaviours as being less effective coping strategies than the individuals not reporting dysphoric symptomatology.

Table 7

<table>
<thead>
<tr>
<th>Emotion-focused and Ineffective Escapism Behaviours In Coping Index</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Become aggressive</td>
</tr>
<tr>
<td>2. Use negative self-talk</td>
</tr>
<tr>
<td>3. Yell at spouse/kids/friends</td>
</tr>
<tr>
<td>4. Drink a lot of coffee or tea</td>
</tr>
<tr>
<td>5. Ignore the problem as much as possible</td>
</tr>
<tr>
<td>6. Think about the possibility of suicide</td>
</tr>
<tr>
<td>7. Smoke tobacco</td>
</tr>
<tr>
<td>8. Chew fingernails</td>
</tr>
<tr>
<td>9. Overeat, Undereat</td>
</tr>
<tr>
<td>10. Become irritable</td>
</tr>
<tr>
<td>11. Cry excessively</td>
</tr>
<tr>
<td>12. Kick something, Throw something</td>
</tr>
<tr>
<td>13. Drive fast in a car</td>
</tr>
<tr>
<td>14. Get drunk</td>
</tr>
<tr>
<td>15. Swear</td>
</tr>
<tr>
<td>16. Take a tranquilizing drug</td>
</tr>
<tr>
<td>17. Avoid social contact</td>
</tr>
<tr>
<td>18. Try to anticipate the worst possible outcome</td>
</tr>
</tbody>
</table>
CHAPTER IV

DISCUSSION

The current study examined the relationship between self-complexity, coping behaviour, and stress-related depressive symptomatology. A Community of Selves REPgrid, an instrument that measures one’s self-construct system, was used to obtain self-complexity scores.

Much of the research on personal constructs and psychopathology has found that individual’s with poor premorbid adjustment display relatively complex but poorly integrated construct systems (Nicholson, 1985). This looseness of construct organization is associated with rigid, unchanging patterns of behaviour and a generally poor level of psychological adjustment (Angelillo et al., 1985; Landfield and Barr, 1976). Contrary to this past research, the data from the present study do not support the hypothesis that depressed individuals have more disjointed and less integrated construct systems. No relationship was found between reported symptom level and either cognitive complexity or integration.

Although these findings are inconsistent with the previously validated model of complexity and adjustment, one must first consider that the range of scores on the self-
rating depression scale obtained in the present sample likely reflect subclinical levels of depressive symptomatology. In comparison studies, depressed samples included more severe, pathological levels of depression found in inpatient populations (Angelillo et. al. 1985; Nicholson, 1985). The lack of findings in the present study may therefore be due to differences in the kind of depression that is being measured. Depression in a college student sample is likely to be more reactive and therefore less severe in nature (Gotlib, 1984). This may reflect a qualitatively as well as quantitatively different process and does not appear to involve a complete disruption of the self-system, as is often found in clinical depression. Given this possibility, the present findings may not compare with findings from studies using clinical populations. Several studies have in fact warned researchers of the limits of generalizability of findings when college student populations are used (Gotlib, 1984), and the present results bear witness to this problem.

The major hypothesis of the present study, that self-complexity is related to greater variety and versatility in coping behaviour, was supported. The results of this study indicate that more complex individuals, those having higher ordination scores, utilize a greater number of coping strategies, indicating greater variety and choice of alternatives. Further, this relationship remained fairly
strong when the effects of daily stress and dysphoric affect were held constant. One implication of this finding is that complex individuals can choose from a variety of coping strategies. As Linville describes (1987), increased self-differentiation provides a highly efficient way of accessing self-relevant information in a variety of areas of life, and of discriminating and responding to the varied demands of an increasing number of roles and interpersonal situations. In a stressful situation, the complex individual can use greater discretion and alter his or her behaviour according to what is perceived to be most adaptive for coping. The less complex individual is, on the other hand, less apt to have a variety of behavioural options at his or her disposal, and more inclined to utilize fewer, rigid, possibly inappropriate behaviours to deal with a variety stressful demands.

Beck (1967b) described the maladjusted individual as being unable to differentiate different levels of meaning in thinking. The maladjusted person gets "stuck" into construing many events as being catastrophic and seems to have difficulty in perceiving life circumstances as having different implications. In addition, the individual is unable to recognize possible behavioural options or alternative courses of action in different circumstances.

The findings of the present study provide partial evidence to further substantiate the notion that ordination
is in some way a correlate of psychological adjustment. Ordination is certainly sensitive to the individual's ability to adapt, in a general way, to the environment (Angelillo et. al., 1985), and more specifically seems to be inherently linked with coping capacity and behaviour.

Although more complex individuals utilize a greater variety of coping behaviours, results did not indicate that they perceive their coping to be any more effective than the less complex group. There are several possible explanations for this. First, the measure of effectiveness may not be sensitive enough to reveal a statistical difference. Second, the range of ordination scores in the present sample was somewhat circumscribed. It is possible that differences may be present at more extreme levels of complexity. Finally, it is also possible that absolute differences in perceived effectiveness of coping behaviours may be misleading given that, at higher levels of complexity, there is assumed to be a greater tolerance for ambiguity. Thus, highly complex individuals are likely to rate the effectiveness of their behaviour as being situation-dependent and their effectiveness ratings may have been influenced by this. It may prove more fruitful in the future to investigate variability versus polarization of effectiveness ratings, rather than absolute mean ratings. A Likert scale rating of effectiveness may prove more useful in this regard.
Most of the analyses at the individual level did not reveal any significant trends. Again, it is possible that the lack of findings may be due to the limited range of complexity scores in the sample studied. An alternative explanation is that the "whole is greater than the sum of its' parts". In other words, differences that can be seen when the unit of analysis is the "community of selves" are not detectable for individual "selves". Because the self-system is exactly that - a system - analysis of every individual self may not be as meaningful as analysis of the clusters and interrelationships of the selves within the system. For example, an individual's "protective" self may be closely related to their "vulnerable" self. In the interview the subject may report that their "protective" self is very active in the coping process. To this end, the "protective" self would then have a high number of coping strategies associated with it, and the "vulnerable" self may not. However, because the two are closely related for the individual, an action or behaviour utilized by one self would likely benefit the other. Both selves may be highly differentiated, but a positive correlation between coping and ordination would only appear for the protective self. Thus, meaningful associations may actually be lost at this level of analysis.

Independent ratings of subjects' descriptions of their selves revealed, first, that inter-rater agreement was mild
to moderate. Further, analyses of coping behaviour and depressive affect, using judge's independent ratings as the independent variable revealed that this method was quite powerful in detecting differences between selves rated as "In Trouble", "Fine", or "Excellent". An interesting finding with the analysis of coping behaviour was that selves judged to be "In Trouble" utilized the highest number of coping strategies. It is possible that either (a) these selves utilize a greater number of negative coping strategies or (b) subjects are able to perceive for themselves that this self is "In Trouble" and are currently trying to do something about it. Nonetheless, this method of rating one's "community of selves" could prove to be quite beneficial as a diagnostic tool, especially in the initial phase of therapy.

Past research has found that depressed individuals have been found to engage in a number of self-defeating coping behaviours such as drinking, smoking, self-isolation, etc (Parker & Brown, 1982; Parker et. al., 1986; Rhode et. al, 1990), and similar results were found in the present study. Although the difference between groups on level of reported symptomatology was only mild, analyses revealed that individuals experiencing dysphoric mood report utilizing more negative coping strategies, such as taking drugs, drinking, yelling at or hitting someone else, isolating oneself, imagining the worst possible outcome, etc.
Further, the differences between the groups were substantial. However, due to the fact that the data are correlational, no statements about causality can be made at this time. The most likely explanation is that of a reciprocal feedback loop in which a person who feels sad isolates themself and/or gets drunk, etc., and continues to feel more and more despondent due to this ineffective coping behaviour. Further, because they continue to remain despondent, more negative coping behaviours are utilized. At this point, longitudinal data could provide further explication of how this process develops and perpetuates itself.

Contrary to findings in previous studies, ratings of effectiveness of coping behaviours were not significantly different between groups. Both symptomatic and non-symptomatic individuals perceived negative coping behaviours to be relatively ineffective strategies for dealing with stress.

An interesting point of departure at this point is to raise the question of why the symptomatic individuals reported using these negative strategies when in fact they were perceived as being ineffective. One plausible explanation is that, as elaborated by Neimeyer (1983, 1985), depression is related to an inability to extend oneself into the future and anticipate the outcome of events. In this study, the behaviours categorized as negative were
identified as such due to recognizable, detrimental, short-term and long-term effects of such behaviours. However, it is obvious that many of these behaviours could have an immediate ameliorative influence on negative mood (i.e., taking a drug, drinking, smoking, overeating, discharging emotion, etc.). Thus, it is not surprising that even mildly dysphoric individuals would continue to engage in such behaviours if their construct systems did not allow for the elaboration and anticipation of future outcomes. Non-symptomatic individuals on the other hand can recognize that these strategies are not especially effective, even though they may have an immediate positive effect, and more or less refrain from using them.

One implication of this finding for treatment addresses the difficulties encountered when therapeutic efforts target behaviours. It is a well-known fact that much resistance is met when therapeutic efforts focus on reducing or eliminating a particular behaviour (e.g., overeating, smoking, drinking). One possible reason for this, especially with a less complex individual is that they have difficulty extending themselves into the future and "seeing themselves" in a different way.

At a theoretical level, this study can be seen as further progress toward understanding the relationship between the processes involved in self-complexity and emotional and mental health reactions. Several important
contributions of this study can be noted. First, the notion of self-complexity provides theoretical insight into the cognitive, affective, and, with the addition of this study, behavioural responses to stress that result in adverse psychological and physical reactions (Linville, 1987). Second, the use of the REPgrid as a measure of self-complexity is a useful diagnostic tool for identifying individuals at risk for psychological and/or physiological symptoms under stress. From a clinical perspective however, the actual semantic content of self and construct groupings could provide rich sources of data concerning how individuals structure and think about their lives. To this end, further investigations could utilize a paradigm in which selves and constructs are elicited rather than supplied. Finally, the present research findings indicate that effective therapeutic interventions would be those that encourage people to develop distinctions among their self-aspects, as well as focus on those self-aspects about which they have positive thoughts and feelings (Linville, 1987).

The Fixed Role Therapy of George Kelly (1955) is an example of a forthright method for providing an individual with a cognitive structure for construing his world. Using this method, client’s are essentially required to play-act roles generated by their construct systems. The role of the therapist is to facilitate the development and implementation of these roles, with the aim being increased differentiation.
within the construct system. Our construct systems "offer a network of pathways for movement, but we cannot strike out across country unless we can build new paths, new constructions to carry out such movement." (Mair, 1977b, pp. 263). The therapist’s purpose is to facilitate the development of these new paths. Ultimately, the client comes to know that we are "not bound by conditioning or family dynamics...and we can be different if we do differently, we can become different by acting differently" (Mair, 1977b, pp.267).

Several limitations of the present study should be noted. First, the participants in this study were university students. It is by no means evident that the perceptual and cognitive processes involved in judging the impact of stressful events and coping behaviours are similar to an older, more diverse group. Furthermore, the range of self-reported depression level was quite circumscribed—only mild. As previously mentioned, some of the null results found may have been due to sub-clinical depression levels. Further, another limitation to the generalizability of the findings involved the nonrandom selection of subjects because of voluntary participation.

The accuracy of subject self-reports is another potential limitation. As with most studies in this area, the results depended on the subjects’ ability to accurately remember, correctly describe, and honestly report how they
deal with stressful situations. The extent to which subjects are inaccurate limits the generalizability of findings. In this study, however, the interview format provided a safeguard against misunderstood questions and inaccurate recall in that subjects could ask questions or be prompted when difficulties arose. One obvious disadvantage of this format was the potential for underreporting or "faking good." However, it was the impression of both interviewers that most subjects' were cooperative and provided valid information about themselves.

The representativeness of the items used in the coping index in the present study in relation to the total universe of coping behaviours constituted another potential limitation. Clearly many potentially beneficial, or harmful, coping behaviours may not have been included in the present study. However, the item pool was chosen from psychometrically sound instruments, and the final item pool was relatively large, thus increasing the likelihood of its' overall representativeness.

Finally, the present results offer correlational data for a contextualistic model. Although several additional and interesting findings are offered, further clarification necessitates the use of a longitudinal design in which personal constructs, self-complexity, depression, and stressful life events can be documented on an ongoing basis. Longitudinal information will provide both researchers and
clinicians with more accurate predictions of emotional vulnerability over time.

The findings of the present study address only a few aspects of the extremely complex and problematic syndrome of depression, and psychological adjustment in general. This study, along with others, present evidence that the most accurate view of mental health and mental illness would seem to be contextualistic in nature. To this end, further research could also include and examine the influence of such things as parenting style, developmental history, physical health, and social support in the development of psychological and physiological symptomatology.
APPENDIX A

INFORMED CONSENT

(SUBJECT COMPLETES)
RESEARCH CONSENT FORM

I, __________________________, agree to participate in a study involving self-perceptions, personal attitudes, and emotions. This study is part of some research being done by Alison J. Longhorn, a PhD. student in Clinical Psychology at the University of North Texas.

I understand that I will be expected to participate in a number of experimental tasks including the completion of forms, checklists, and questionnaires that relate to my attitudes, perceptions and feelings about people and situations.

I understand that all information obtained in this study is confidential to the extent that my personal identity cannot be determined as I will not be requested to provide information of this sort. Under this condition, I agree that information obtained from this study may be used in any way thought best for the field of psychology (i.e. publication, further research).

I understand that there is no personal risk or discomfort directly involved with this research and that I am free to withdraw my consent and discontinue participation in this study at any time.

_________________________________  __________________________
Date  Participant
APPENDIX B

DEMOGRAPHIC INFORMATION

(SUBJECT COMPLETES)
Background and History Information

ID ___
Sex ___
Age ___
Race ___ (white, black, hispanic, asian, other)
Education ___

How would you describe your overall physical health in the past year?
   Excellent ___
   Very Good ___
   Good ___
   Poor ___
   Very Poor ___

How many times have you seen a physician (for other than a "check-up") in the past year?
   One ___
   Two ___
   Three ___
   Four ___
   More than 4 ___

Which of the following have occurred more frequently than is usual for you over the past year? (please circle)

headaches  heart palpitations  stomach trouble
fatigue  bowel disturbances  taking sedatives
aches, pains  sinus problems  heart problems
skin problems  fainting spells  dizziness
no appetite  ear problems  eye problems
allergies  numb or tingling limbs  sexual problems
drug/alcohol problems
APPENDIX C

THE REP TEST

(SUBJECT COMPLETES)
TASK ONE

The REP Test

Instruction Sheet

This questionnaire is composed of two sheets: (1) the Response sheet and (2) the instruction sheet. Read all directions before beginning. If the directions are not completely clear, ask for more information.

Start with the Response sheet. Listed across the top of this sheet are 15 prospective "selves" (i.e., vulnerable, critical). Down the side of this sheet you will see 10 pairs of constructs which can be used to describe these various aspects of your self.

Starting with row 1, go down each row, rating each of the fifteen "selves" using the 13-point rating scale between column 1 and column 2. For instance, if in the first row you have the descriptors "humorous" and "serious", consider each self and rate them on the extent to which they are either "humorous" or "serious". You might rate one self a +5 or +6 if you perceive them as very serious; if they are only moderately serious you might choose a rating of +3 or +4; if they are just a little serious you might choose to rate them a +2 or +1. If a self in a row cannot be accurately described by a rating on either description, i.e., they're neither humorous nor serious, put a 0 in the appropriate box.

After finishing ratings in row 1, proceed to row 2, etc.

Possible Selves

1. Vulnerable Self
2. Spiritual Self
3. Protective Self
4. Discovering Self
5. Critical Self
6. Get Things Done Self
7. Step Back/Big Picture Self
8. Sensual Self
9. Seeking Self
10. Moral Self
11. Dreaming Self
12. Playful Self
13. Organizing Self
14. Affilial Self
15. Expert on Changing Self
The Adams-Weber (1985) supplied constructs:

generous-stingy
pleasant-unpleasant
active-passive
hard-soft
energetic-lethargic
sharp-dull
excitable-calm
strong-weak
bold-timid
rugged-delicate
APPENDIX D
ZUNG DEPRESSION INVENTORY
(SUBJECT COMPLETES)
For the following statements please rate the extent to which it is true of the way you currently feel or act.

<table>
<thead>
<tr>
<th>A little of the time</th>
<th>Some of the time</th>
<th>Good Part of the time</th>
<th>Most of the time</th>
</tr>
</thead>
</table>

1. I feel down-hearted and blue.

2. Morning is when I feel the best.

3. I have crying spells or feel like it.

4. I have trouble sleeping at night.

5. I eat as much as I used to.

6. I still enjoy sex.

7. I notice that I am losing weight.

8. I have trouble with constipation.

9. My heart beats faster than usual.

10. I get tired for no reason.

11. My mind is as clear as it used to be.

12. I find it easy to do the things I used to.

13. I am restless and can’t keep still.


15. I am more irritable than usual.
16. I find it easy to make decisions.

17. I feel that I am useful and needed.

18. My life is pretty full.

19. I feel that others would be better off if I were dead.

20. I still enjoy the things I used to.
APPENDIX E
COPING SKILLS INDEX
(EXAMINER COMPLETES)
Which of the following behaviours would you be likely to engage in to deal with stress? Check any that apply.

<table>
<thead>
<tr>
<th></th>
<th>Often</th>
<th>Rarely</th>
<th>Not At All</th>
</tr>
</thead>
<tbody>
<tr>
<td>Listen to music</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Effective?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Which self?</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Go shopping with a friend
Effective?
Which self?

Watch television
Effective?
Which self?

Read a newspaper, magazine, or book
Effective?
Which self?

Sit alone in peaceful outdoors
Effective?
Which self?

Write prose or poetry
Effective?
Which self?

Attend athletic event, play, lecture, symphony
Effective?
Which self?

Go for a walk or drive
Effective?
Which self?

Exercise
Effective?
Which self?

Get deeply involved in some other activity
Effective?
Which self?
Play with a pet
Effective?
Which self?

Take a nap
Effective?
Which self?

Get outdoors, enjoy nature
Effective?
Which self?

Write in journal
Effective?
Which self?

Practice deep breathing,
meditation, muscle relaxation
Effective?
Which self?

Straighten up desk or work area
Effective?
Which self?

Take a bath or shower
Effective?
Which self?

Do physical labour-garden or paint
Effective?
Which self?

Make home repairs,
refinish furniture
Effective?
Which self?

Buy something-records,
books, clothes
Effective?
Which self?

Play a game (chess,
backgammon, video games)
Effective?
Which self?
Pray, go to church
Effective?
Which self?

Discuss situation
with spouse or friends
Effective?
Which self?

Become aggressive
Effective?
Which self?

Use negative self-talk
Effective?
Which self?

Yell at spouse/kids/friends
Effective?
Which self?

Drink a lot of coffee or tea
Effective?
Which self?

Ignore the problem as much
as possible
Effective?
Which self?

Try to discuss the problem
with a the person involved
Effective?
Which self?

Seek advice from someone
Effective?
Which self?

Socialize-go to a club
Effective?
Which self?

Think through the problem
Effective?
Which self?
Think about the possibility of suicide
   Effective?
Which self?

Smoke tobacco
   Effective?
Which self?

Chew fingernails
   Effective?
Which self?

Overeat, undereat
   Effective?
Which self?

Become irritable, short tempered
   Effective?
Which self?

Cry excessively
   Effective?
Which self?

Kick something, throw something
   Effective?
Which self?

Drive fast in a car
   Effective?
Which self?

Get drunk
   Effective?
Which self?

Swear
   Effective?
Which self?

Take a tranquilizing drug
   Effective?
Which self?
Often Rarely Not At All

Avoid social contact with others
  Effective?
Which self?

Try to anticipate the worst possible outcome
  Effective?
Which self?

Others (list)
  Effective?
Which self?
APPENDIX F

THE HASSLES SCALE

(EXAMINER COMPLETES)
Listed on the following are a number of ways in which a person can feel hassled. First, circle the hassles that have happened to you in the past month. The write underneath which self in your community of selves is most threatened by this hassle. Now look at the numbers on the right of the items you circled. Indicate by circling a 1, 2, or 3 how SEVERE each of the circled hassles has been for you in the past month. If a hassle did not occur in the past month do not circle it.

<table>
<thead>
<tr>
<th>HASSLES</th>
<th>SEVERITY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Misplacing or losing things</td>
<td>1 somwhat severe</td>
</tr>
<tr>
<td>Troubleneighbours</td>
<td>2 moderately severe</td>
</tr>
<tr>
<td>Social obligations</td>
<td>3 extremely severe</td>
</tr>
<tr>
<td>Inconsiderate smokers</td>
<td>1</td>
</tr>
<tr>
<td>Health of a family member</td>
<td>2</td>
</tr>
<tr>
<td>Not enough money</td>
<td>3</td>
</tr>
<tr>
<td>Financial responsibility for</td>
<td>1</td>
</tr>
<tr>
<td>someone who doesn't live with you</td>
<td>2</td>
</tr>
<tr>
<td>Cutting down on electricity, water</td>
<td>3</td>
</tr>
<tr>
<td>Too many responsibilities</td>
<td>1</td>
</tr>
<tr>
<td>Decisions about having children</td>
<td>2</td>
</tr>
<tr>
<td>Non-family members living</td>
<td>3</td>
</tr>
<tr>
<td>in your house</td>
<td>1</td>
</tr>
<tr>
<td>Planning meals</td>
<td>2</td>
</tr>
<tr>
<td>Problem</td>
<td>Rank 1</td>
</tr>
<tr>
<td>--------------------------------------------------------</td>
<td>--------</td>
</tr>
<tr>
<td>Problems getting along with fellow workers</td>
<td>1</td>
</tr>
<tr>
<td>Customers or clients give you a hard time</td>
<td>1</td>
</tr>
<tr>
<td>Home maintenance</td>
<td>1</td>
</tr>
<tr>
<td>Concerns about job security</td>
<td>1</td>
</tr>
<tr>
<td>Concerns about retirement</td>
<td>1</td>
</tr>
<tr>
<td>Laid-off or out of work</td>
<td>1</td>
</tr>
<tr>
<td>Don’t like current work duties</td>
<td>1</td>
</tr>
<tr>
<td>Don’t like fellow workers</td>
<td>1</td>
</tr>
<tr>
<td>Too many interruptions</td>
<td>1</td>
</tr>
<tr>
<td>Unexpected company</td>
<td>1</td>
</tr>
<tr>
<td>Too much time on hands</td>
<td>1</td>
</tr>
<tr>
<td>Having to wait</td>
<td>1</td>
</tr>
<tr>
<td>Being lonely</td>
<td>1</td>
</tr>
<tr>
<td>Fear of confrontation</td>
<td>1</td>
</tr>
<tr>
<td>Financial security</td>
<td>1</td>
</tr>
<tr>
<td>Silly practical mistakes</td>
<td>1</td>
</tr>
<tr>
<td>Inability to express yourself</td>
<td>1</td>
</tr>
<tr>
<td>Topic</td>
<td>Count</td>
</tr>
<tr>
<td>------------------------------------------------------------</td>
<td>-------</td>
</tr>
<tr>
<td>Physical illness</td>
<td>1</td>
</tr>
<tr>
<td>Physical appearance</td>
<td>1</td>
</tr>
<tr>
<td>Fear of rejection</td>
<td>1</td>
</tr>
<tr>
<td>Difficulties with getting pregnant</td>
<td>1</td>
</tr>
<tr>
<td>Sexual problems that result from physical problems</td>
<td>1</td>
</tr>
<tr>
<td>Sexual problems other than those resulting from physical problems</td>
<td>1</td>
</tr>
<tr>
<td>Concerns about health in general</td>
<td>1</td>
</tr>
<tr>
<td>Not seeing enough people</td>
<td>1</td>
</tr>
<tr>
<td>Friends or relatives too far away</td>
<td>1</td>
</tr>
<tr>
<td>Preparing meals</td>
<td>1</td>
</tr>
<tr>
<td>Wasting time</td>
<td>1</td>
</tr>
<tr>
<td>Auto maintenance</td>
<td>1</td>
</tr>
<tr>
<td>Neighbourhood deterioration</td>
<td>1</td>
</tr>
<tr>
<td>Financing children’s education</td>
<td>1</td>
</tr>
<tr>
<td>Problems with employees</td>
<td>1</td>
</tr>
<tr>
<td>Filling out forms</td>
<td>1</td>
</tr>
<tr>
<td>Problem</td>
<td>1</td>
</tr>
<tr>
<td>------------------------------------------------------------------------</td>
<td>---</td>
</tr>
<tr>
<td>Problems on job due to being woman or man</td>
<td></td>
</tr>
<tr>
<td>Declining physical abilities</td>
<td></td>
</tr>
<tr>
<td>Being exploited</td>
<td></td>
</tr>
<tr>
<td>Concerns about bodily functions</td>
<td></td>
</tr>
<tr>
<td>Rising prices of common goods</td>
<td></td>
</tr>
<tr>
<td>Not getting enough rest</td>
<td></td>
</tr>
<tr>
<td>Problems with aging parents</td>
<td></td>
</tr>
<tr>
<td>Problems with your children</td>
<td></td>
</tr>
<tr>
<td>Problems with persons younger than yourself</td>
<td></td>
</tr>
<tr>
<td>Problems with your lover</td>
<td></td>
</tr>
<tr>
<td>Too many things to do</td>
<td></td>
</tr>
<tr>
<td>Unchallenging work</td>
<td></td>
</tr>
<tr>
<td>Concerns about meeting standards</td>
<td></td>
</tr>
<tr>
<td>Job dissatisfaction</td>
<td></td>
</tr>
<tr>
<td>Worries about decisions to change jobs</td>
<td></td>
</tr>
<tr>
<td>Academic problems</td>
<td></td>
</tr>
<tr>
<td>Problems with divorce</td>
<td></td>
</tr>
</tbody>
</table>
Gossip..................  1  2  3
Legal problems........  1  2  3
Concerns about weight  1  2  3

Not enough time to do the things
you need to do..................  1  2  3

Feel conflicted over what to do.....  1  2  3

Regrets over past decisions........  1  2  3

Menstrual (period) problems......  1  2  3

The weather..................  1  2  3

Nightmares.....................  1  2  3

Concerns about getting ahead.....  1  2  3

Hassles about boss or supervisor....  1  2  3

Difficulties with friends.........  1  2  3

Not enough time for family.......  1  2  3

Transportation problems...........  1  2  3

Shopping........................  1  2  3

Property, investments, or taxes....  1  2  3

Prejudice and discrimination
from others.....................  1  2  3
Not enough time for entertainment and recreation ................ 1 2 3

Yardwork or outside home maintenance ......................... 1 2 3

Concerns about new events ....................... 1 2 3

Noise .................................................... 1 2 3

Crime ..................................................... 1 2 3

Traffic ................................................... 1 2 3

Pollution ................................................. 1 2 3

HAVE WE MISSED ANY OF YOUR HASSLES? IF SO, WRITE THEM BELOW:

__________________________________________________________

ONE MORE THING: HAS THERE BEEN A CHANGE IN YOUR LIFE THAT AFFECTED HOW YOU ANSWERED THIS SCALE? IF SO, TELL US WHAT IT WAS:

__________________________________________________________
APPENDIX G

DATA LIST
<table>
<thead>
<tr>
<th>CASE#</th>
<th>DX</th>
<th>E</th>
<th>E</th>
<th>C</th>
<th>G</th>
<th>S</th>
<th>E</th>
<th>E</th>
<th>G</th>
<th>C</th>
<th>D</th>
<th>G</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>4</td>
<td>3</td>
<td>6</td>
<td>4</td>
<td>1</td>
<td>5</td>
<td>19</td>
<td>2.4</td>
<td>4</td>
<td>14</td>
</tr>
<tr>
<td>2</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>5</td>
<td>15</td>
<td>47</td>
<td>1</td>
<td>11</td>
<td>30</td>
<td>1.4</td>
<td>5</td>
<td>21</td>
<td>2.2</td>
</tr>
<tr>
<td>3</td>
<td>3</td>
<td>1</td>
<td>4</td>
<td>4</td>
<td>1</td>
<td>14</td>
<td>3</td>
<td>1</td>
<td>5</td>
<td>28</td>
<td>1.1</td>
<td>15</td>
<td>2.2</td>
</tr>
<tr>
<td>4</td>
<td>4</td>
<td>1</td>
<td>1</td>
<td>6</td>
<td>37</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>5</td>
<td>1.5</td>
<td>7</td>
<td>11</td>
<td>2.4</td>
</tr>
<tr>
<td>5</td>
<td>5</td>
<td>1</td>
<td>5</td>
<td>26</td>
<td>1</td>
<td>3</td>
<td>9</td>
<td>1</td>
<td>11</td>
<td>1.1</td>
<td>2</td>
<td>4</td>
<td>1.9</td>
</tr>
<tr>
<td>6</td>
<td>6</td>
<td>1</td>
<td>1</td>
<td>6</td>
<td>30</td>
<td>1</td>
<td>2</td>
<td>0</td>
<td>1</td>
<td>1.1</td>
<td>7</td>
<td>2.5</td>
<td>4</td>
</tr>
<tr>
<td>7</td>
<td>7</td>
<td>1</td>
<td>2</td>
<td>1</td>
<td>15</td>
<td>51</td>
<td>4</td>
<td>2</td>
<td>7</td>
<td>1.2</td>
<td>4</td>
<td>2.2</td>
<td>6</td>
</tr>
<tr>
<td>8</td>
<td>8</td>
<td>1</td>
<td>1</td>
<td>4</td>
<td>36</td>
<td>12</td>
<td>2</td>
<td>4</td>
<td>9</td>
<td>1.0</td>
<td>8</td>
<td>2.7</td>
<td>6</td>
</tr>
<tr>
<td>9</td>
<td>9</td>
<td>1</td>
<td>1</td>
<td>6</td>
<td>38</td>
<td>2</td>
<td>18</td>
<td>1.0</td>
<td>8</td>
<td>2.6</td>
<td>6</td>
<td>1.0</td>
<td>8</td>
</tr>
<tr>
<td>10</td>
<td>10</td>
<td>1</td>
<td>1</td>
<td>5</td>
<td>43</td>
<td>6</td>
<td>1</td>
<td>7</td>
<td>1.6</td>
<td>2</td>
<td>1.8</td>
<td>8</td>
<td>1.5</td>
</tr>
<tr>
<td>11</td>
<td>11</td>
<td>1</td>
<td>1</td>
<td>6</td>
<td>30</td>
<td>1</td>
<td>2</td>
<td>1</td>
<td>1.5</td>
<td>7</td>
<td>10</td>
<td>2.6</td>
<td>3</td>
</tr>
<tr>
<td>12</td>
<td>12</td>
<td>1</td>
<td>1</td>
<td>4</td>
<td>24</td>
<td>5</td>
<td>1</td>
<td>2</td>
<td>1.1</td>
<td>5</td>
<td>9</td>
<td>2.8</td>
<td>1</td>
</tr>
<tr>
<td>13</td>
<td>13</td>
<td>1</td>
<td>1</td>
<td>6</td>
<td>47</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>2.9</td>
<td>14</td>
<td>4.2</td>
<td>5</td>
<td>1.0</td>
</tr>
<tr>
<td>14</td>
<td>14</td>
<td>1</td>
<td>1</td>
<td>6</td>
<td>47</td>
<td>11</td>
<td>5</td>
<td>4</td>
<td>1.2</td>
<td>2</td>
<td>2.4</td>
<td>5</td>
<td>1.0</td>
</tr>
<tr>
<td>15</td>
<td>15</td>
<td>1</td>
<td>1</td>
<td>4</td>
<td>1</td>
<td>13</td>
<td>3</td>
<td>5</td>
<td>1.7</td>
<td>2</td>
<td>2.8</td>
<td>1</td>
<td>0.0</td>
</tr>
<tr>
<td>16</td>
<td>16</td>
<td>1</td>
<td>1</td>
<td>4</td>
<td>36</td>
<td>8</td>
<td>2</td>
<td>0</td>
<td>1.9</td>
<td>2</td>
<td>2.5</td>
<td>2</td>
<td>1.0</td>
</tr>
<tr>
<td>17</td>
<td>17</td>
<td>1</td>
<td>1</td>
<td>4</td>
<td>36</td>
<td>2</td>
<td>17</td>
<td>2</td>
<td>2.8</td>
<td>8</td>
<td>2.1</td>
<td>6</td>
<td>1.4</td>
</tr>
<tr>
<td>18</td>
<td>18</td>
<td>1</td>
<td>1</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>1</td>
<td>1.1</td>
<td>8</td>
<td>1.7</td>
<td>6</td>
<td>1.1</td>
</tr>
<tr>
<td>19</td>
<td>19</td>
<td>1</td>
<td>1</td>
<td>3</td>
<td>3</td>
<td>9</td>
<td>2</td>
<td>8</td>
<td>1.8</td>
<td>9</td>
<td>2.8</td>
<td>2</td>
<td>0.0</td>
</tr>
<tr>
<td>20</td>
<td>20</td>
<td>1</td>
<td>1</td>
<td>3</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>2</td>
<td>2.0</td>
<td>0</td>
<td>1.7</td>
<td>2</td>
<td>1.7</td>
</tr>
<tr>
<td>21</td>
<td>21</td>
<td>1</td>
<td>1</td>
<td>5</td>
<td>49</td>
<td>5</td>
<td>2</td>
<td>2</td>
<td>2.2</td>
<td>1</td>
<td>3.0</td>
<td>0</td>
<td>3.0</td>
</tr>
<tr>
<td>22</td>
<td>22</td>
<td>1</td>
<td>1</td>
<td>6</td>
<td>31</td>
<td>2</td>
<td>2</td>
<td>8</td>
<td>1.7</td>
<td>1</td>
<td>2.6</td>
<td>1</td>
<td>2.0</td>
</tr>
<tr>
<td>23</td>
<td>23</td>
<td>1</td>
<td>1</td>
<td>4</td>
<td>4</td>
<td>7</td>
<td>2</td>
<td>5</td>
<td>2.4</td>
<td>1</td>
<td>2.7</td>
<td>6</td>
<td>1.3</td>
</tr>
<tr>
<td>24</td>
<td>24</td>
<td>1</td>
<td>1</td>
<td>4</td>
<td>3</td>
<td>0</td>
<td>8</td>
<td>1</td>
<td>1.6</td>
<td>5</td>
<td>1.0</td>
<td>0</td>
<td>2.0</td>
</tr>
<tr>
<td>25</td>
<td>25</td>
<td>1</td>
<td>1</td>
<td>3</td>
<td>3</td>
<td>8</td>
<td>2</td>
<td>9</td>
<td>1.7</td>
<td>6</td>
<td>1.1</td>
<td>8</td>
<td>1.5</td>
</tr>
<tr>
<td>26</td>
<td>26</td>
<td>1</td>
<td>1</td>
<td>4</td>
<td>37</td>
<td>2</td>
<td>4</td>
<td>2</td>
<td>2.0</td>
<td>0</td>
<td>7</td>
<td>2.4</td>
<td>3</td>
</tr>
<tr>
<td>27</td>
<td>27</td>
<td>1</td>
<td>1</td>
<td>6</td>
<td>53</td>
<td>13</td>
<td>3</td>
<td>2</td>
<td>2.2</td>
<td>5</td>
<td>2.5</td>
<td>6</td>
<td>1.7</td>
</tr>
<tr>
<td>28</td>
<td>28</td>
<td>1</td>
<td>1</td>
<td>4</td>
<td>3</td>
<td>5</td>
<td>2</td>
<td>3</td>
<td>2.3</td>
<td>2</td>
<td>2.4</td>
<td>4</td>
<td>1.6</td>
</tr>
<tr>
<td>29</td>
<td>29</td>
<td>1</td>
<td>1</td>
<td>6</td>
<td>23</td>
<td>5</td>
<td>1</td>
<td>2</td>
<td>2.0</td>
<td>0</td>
<td>2</td>
<td>2.1</td>
<td>6</td>
</tr>
<tr>
<td>30</td>
<td>30</td>
<td>1</td>
<td>1</td>
<td>4</td>
<td>3</td>
<td>4</td>
<td>2</td>
<td>3</td>
<td>2.2</td>
<td>9</td>
<td>2.5</td>
<td>6</td>
<td>1.4</td>
</tr>
<tr>
<td>31</td>
<td>31</td>
<td>1</td>
<td>1</td>
<td>7</td>
<td>4</td>
<td>6</td>
<td>2</td>
<td>3</td>
<td>2.1</td>
<td>7</td>
<td>1.7</td>
<td>2</td>
<td>0.2</td>
</tr>
<tr>
<td>32</td>
<td>32</td>
<td>1</td>
<td>1</td>
<td>4</td>
<td>3</td>
<td>4</td>
<td>1</td>
<td>6</td>
<td>1.7</td>
<td>9</td>
<td>2.4</td>
<td>3</td>
<td>2.2</td>
</tr>
<tr>
<td>33</td>
<td>33</td>
<td>1</td>
<td>1</td>
<td>3</td>
<td>6</td>
<td>6</td>
<td>2</td>
<td>0</td>
<td>1.7</td>
<td>3</td>
<td>2.9</td>
<td>8</td>
<td>1.3</td>
</tr>
<tr>
<td>34</td>
<td>34</td>
<td>1</td>
<td>1</td>
<td>6</td>
<td>24</td>
<td>0</td>
<td>1</td>
<td>4</td>
<td>2.0</td>
<td>7</td>
<td>2.1</td>
<td>6</td>
<td>0.0</td>
</tr>
<tr>
<td>35</td>
<td>35</td>
<td>1</td>
<td>1</td>
<td>4</td>
<td>6</td>
<td>8</td>
<td>2</td>
<td>1</td>
<td>2.1</td>
<td>9</td>
<td>2.3</td>
<td>7</td>
<td>1.4</td>
</tr>
<tr>
<td>36</td>
<td>36</td>
<td>1</td>
<td>1</td>
<td>5</td>
<td>42</td>
<td>3</td>
<td>2</td>
<td>8</td>
<td>2.2</td>
<td>5</td>
<td>1.4</td>
<td>7</td>
<td>2.0</td>
</tr>
<tr>
<td>37</td>
<td>37</td>
<td>1</td>
<td>1</td>
<td>6</td>
<td>34</td>
<td>4</td>
<td>2</td>
<td>3</td>
<td>2.0</td>
<td>1</td>
<td>2.7</td>
<td>7</td>
<td>1.1</td>
</tr>
<tr>
<td>38</td>
<td>38</td>
<td>1</td>
<td>1</td>
<td>6</td>
<td>26</td>
<td>2</td>
<td>1</td>
<td>2</td>
<td>2.5</td>
<td>8</td>
<td>2.6</td>
<td>6</td>
<td>1.0</td>
</tr>
<tr>
<td>39</td>
<td>39</td>
<td>1</td>
<td>1</td>
<td>6</td>
<td>23</td>
<td>1</td>
<td>9</td>
<td>2</td>
<td>1.7</td>
<td>8</td>
<td>2.9</td>
<td>2</td>
<td>0.0</td>
</tr>
<tr>
<td>40</td>
<td>40</td>
<td>1</td>
<td>1</td>
<td>6</td>
<td>28</td>
<td>7</td>
<td>2</td>
<td>4</td>
<td>1.8</td>
<td>7</td>
<td>2.5</td>
<td>5</td>
<td>1.3</td>
</tr>
</tbody>
</table>

### Notes
- The table above contains a variety of numerical data, likely representing measurements or values under different conditions.
- The columns might correspond to different parameters or variables, as suggested by the headers and the structure of the data.
### KEY TO VARIABLES

ID: Subject id  
SEX: Subject sex  
AGE: Subject age  
RACE: Subject race  
EDUC: Subject education (in Years)  
ZUNG: Self-rated depression score  
STRESS: Number of major stressors in past year  
HASSLES: Number of hassles in past month  
AVSEVERE: Average severity of hassles noted  
POSITIVE: Number of "positive" coping behaviours utilized  
AVPOS: Average effectiveness of positive coping behaviours  
NEGATIVE: Number of "negative" coping behaviours  
AVNEG: Average effectiveness of negative coping behaviours  
COPING: Total number of coping behaviours utilized  
AVEFFECT: Average effectiveness of coping behaviours  
FIC: Subject's functionally independent construction score  
ORD: Subject's ordination score  
GROUP: Group assignment based on ZUNG score  
ORDGROUP: Group assignment based on ORD score
REFERENCES


Congress in Personal Construct Psychology, Rhodes, Memphis.


physiological, psychological, and social perspectives (pp. 207-232). New York, Plenum Press.


Swindle, R. W., Cronkite, R. C., & Moos, R. H. (1989). Life stressors, social resources, coping, and the 4-


