SELF-OTHER PERCEPTIONS UNDER CHALLENGE: A
PERSONAL CONSTRUCT APPROACH TO HOSTILITY
AND THE TYPE A BEHAVIOR PATTERN

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

Hautina K. Bollinger, B.A., M.A.
Denton, Texas
August, 1994
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The purpose of the study was to determine if exposure to a challenging interpersonal situation would have an adverse impact on intra- and interpersonal constructs. Individual difference variables including level of hostility and anger, Type A behavior, control in social situations, depression and sex were examined as "predictors" of those more likely to be adversely affected by personal challenge.

Eighty subjects, 40 male and 40 female, completed questionnaires at a pretesting session including measures of hostility, the Type A behavior pattern, trait anger, exaggerated social control, depression, and self-other constructs. Twenty subjects then participated in a "supportive" role-play condition where the confederate was agreeable and friendly. Sixty subjects participated in a "challenge" role-play condition; the confederate was disagreeable, confrontive, and unpleasant. The posttesting measures were then completed.

Only subjects in the "challenge" condition showed a significant change in a negative direction in their "like-
self" ratings. Trait anger was a significant predictor of increased alienation from others as measured by how frequently subjects' rated themselves as similar to others. A significant negative correlation was found between "like-self" ratings and level of hostility and trait depression. Trait anger and male sex were also significant predictors of change in constructs about "others" whereas male sex and global Type B behavior were predictors of change in constructs about "self." Depression was also positively correlated with a change in "self" constructs. Level of hostility was a significant predictor of an angry mood after the role-play, whereas level of trait depression was the best predictor of post-manipulation depressed mood. No significant correlations were found between measures of mood and nature of change in "self/other" constructs. Findings were discussed in terms of an interpersonal paradigm of hostility and health and how studying individuals' constructs about change may be beneficial for therapeutic intervention strategies.
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CHAPTER I

INTRODUCTION

A recent review of the relationship between hostility and health suggested that research in this area could profit from consideration of interpersonal processes (Smith, 1992). The author noted that "the inherently interpersonal nature of hostility would seem to make the importance of social factors obvious" and acknowledged that much of the research in this area has "focused on the hostile figure and has neglected the surrounding interpersonal ground" (p. 148). Smith's thoughtful analysis proposed that examining the ways in which people construe their social worlds and influence and respond to the actions of others would further refine the psychological and social mechanisms in the hostility/health link.

Critical examination of the Type A behavior pattern (TABP) research has identified the need for conceptual models that recognize the multidimensionality of the Type A construct (Smith & Anderson, 1986; Thoreson & Powell, 1992). Inclusion of ideas from social cognitive theory has been suggested to remedy the paucity of information concerning the social and cultural context in which the TABP develops and takes place (Thoreson & Powell, 1992).
Although more emphasis in the past decade has been placed on examining cognitive factors as an individual difference variable in the TABP/hostility/illness relationship, clear conceptual models are still developing. Many of the more promising models are transactional in nature and recognize the role of the person as an active agent in the interaction with the environment (Smith & Anderson, 1986; Smith & Rhodewalt, 1986).

Kelly's (1955) personal construct theory (PCT) model has been found particularly useful for studying the role of the person as an interacting agent with the environment. His metaphor of "man as scientist," seeking to predict and control the causes of events in which he is involved, is quite complementary to the current transactional theories of stress and illness. The constructivist perspective emphasizes our fundamental need to organize and interpret the world in order to anticipate future events. This need expresses itself as a continual process of accommodating our constructs in order to "fit" with the realities of our environment. Our ability to handle the stresses of the environment is mediated by how well we are able to "accommodate our constructs." Threat, hostility, and anxiety are all described by Kelly as constructs of "transition," occurring when we are involved in accommodating or assimilating invalidating information from the environment. Thus, much of what is described as "Type A
behavior" and "hostility," according to Kelly, would be the process of trying to adapt to an invalidating environment in some personally meaningful way.

Kelly also argued that the "self" is a construct and the development of the "self" and our interpersonal experiences is based on bipolar dimensions where we compare ourselves to others. Our self-other perceptions change as we receive validating/invalidating information from the environment which affects those constructs we use to describe our self and others.

Using a repertory grid technique, this study investigated the nature of an interpersonal stress manipulation method by examining its effect on self-other construct change and mood. Individual difference variables such as the Type A behavior pattern, hostility, trait anger and depression, and a need for interpersonal control were examined as plausible "vulnerability markers" which might increase the magnitude of change in self-other constructs after a "threatening" interpersonal event. These same variables and sex of subject were also examined in terms of the nature of the self-other construct change and reported mood after the experimental manipulation.

Basic Tenants of Personal Construct Theory

Kelly's (1955) fundamental postulate stated that "a person's processes are psychologically channelized by the ways in which he anticipates events" (p. 46). This basic
idea implied that man is in the business to make sense out of his world and to test this sense in terms of its predictive capacity (Bannister, 1971). Kelly believed that personality development resulted from the individual's unique interpretation of events and not from the events themselves. His idea of "constructive alternativism" took the position that there are many workable ways for a person to construe the world and that all of our constructs are subject to revision or replacement. If our predictions or anticipations about an event come true, then our construct system is "validated." If our predictions turn out to be inaccurate in the face of feedback from the environment, then our construct system is "invalidated." Through validating and invalidating experiences, "alternative construction" allows for extension and definition of the person's construct system and for greater precision in anticipating events (Kelly, 1955).

Kelly purported that humans look at the world through patterns, which are ways of construing the world, or constructs (Patterson, 1986). Construct development is the result of contrasting how two elements are similar and contrast with a third. Therefore, constructs are used as if they are dichotomous or bipolar in nature. The person will choose the alternative in a dichotomized construct which he thinks will provide the best basis for anticipating the future (Kelly, 1955). For example, a mother may use the
bipolar construct of "excited/calm" to interpret her child's behavior. When trying to anticipate how her child will react when presented with a birthday present, she will choose the side of the bipolar construct she thinks will most accurately predict her child's reaction.

Personal construct theory maintains that as we mature, we develop constructs about our own identity by comparing ourselves to other people in our environment.

**Self-Other Perceptions**

Kelly discussed the "self" in terms of a construct: the self is... a construct. It refers to a group of events which are alike in a certain way and, in the same way, necessarily different from other events. The way in which the events are alike is the self. That also makes the self an individual differentiated from other individuals. (1955, p. 131)

A self-image or identity results from a specific pattern of similarities and differences between the self and others (Adams-Webber, 1979). Bannister and Agnew (1976) noted that the ways in which we elaborate our construction of self must be those ways in which we elaborate our construction of others as the concept of self is actually a bipolar concept of "self-not self." In other words, we "have a sense" of who we are by comparing ourselves to others on various dimensions. Constructions about the "self" are termed core
constructs. Core constructs give a sense of continuity to a person's self-identity or image (Bannister & Agnew, 1976).

A refined sense of self is accrued with successive contrasts of the self against others. Adams-Webber (1985) used a figure/ground analogy to depict this process: perceived differences between self and others may become increasingly salient as an individual's personal constructs develop, until eventually these differences tend to stand out maximally as "figure" against a background of similarities. (Adams-Webber, 1985, p. 312)

Therefore, it is the differences which define the contours of the self as a figure against a diffuse background of similarities (Adams-Webber, 1979).

The "golden section hypothesis" has been offered as an quantified explanation for the contrast of self against others (Adams-Webber, 1979). Based on information theory, this hypothesis implies that individuals tend to organize their impressions of people in such a way that perceived differences between themselves and others will stand out as maximally salient (Adams-Webber, 1979, 1985). Schwartz (Schwartz & Garamoni, 1986; Schwartz & Michelson, 1987) argued that "asymmetrically balanced cognitive/affective structures proportioned according to the golden section render negative events maximally striking and are therefore optimally suited for coping with stress" (p. 4).
Experiments involving self-other contrast have shown that normal adults tend to assign themselves and other people to the same poles of constructs approximately 63% of the time (Adams & Adams-Webber, 1992; Adams-Webber, 1979; Adams-Webber & Rodney, 1983; Benjafield & Adams-Webber, 1975). Maximum saliency occurs when others are viewed as "unlike self" approximately 37% of the time.

A repertory grid technique has been used to produce predictable shifts in the extent to which subjects differentiate between themselves and others. Kelly (1955) hypothesized that "role-playing" can lead to changes in people’s impressions of both themselves and others. When Benjafield and Adams-Webber (1975) asked high school students to role-play their "ideal selves," the extent to which they categorized others as similar to themselves increased from 63% to 67%. Rodney (1981, cited in Adams-Webber, 1985) found that when students role-played feeling depressed, their "like-self" judgements of others decreased from 63% to 53%. Adams-Webber and Rodney (1983) had subjects successively role-play both positive and negative changes in mood. After portraying positive moods, the subjects "like-self" judgements increased from 63% to 67%. After they role-played a dysphoric mood, there was a decrease in the "like-self" ratings from a baseline of 63% to 56%. The results of these studies suggested that negative affect is related to feelings of increased distance.
from others. This is consistent with the depressive symptom of withdrawal and feelings of alienation from others. The use of a guided imagery methodology has also produced shifts in the categorization of self and others. Rasile (1989) used a guided imagery experience of a previous drug using episode to induce a mood change in male outpatient drug-using adolescents. She found that individuals who reported a shift to a dysphoric mood after the depressive imagery reduced their assignment of others as "like-self."

Weissenburger (1991) found that, after an imagined stressful condition, subjects "like-self" ratings dropped significantly from baseline. In addition, subjects rated their anxiety, anger, and depression higher after the imagined stress condition. Again, these studies found that negative affect was related to feelings of increased alienation from others. Using a positive mood induction task of asking subjects to listen to happy music and to recall pleasant events, Frey and Adams-Webber (1992) found that "like-self" judgements increased from 63% to 69%. Therefore, it appeared that a positive mood was related to decreased perception of distance from others.

**Accurate Interpersonal Prediction**

Kelly's sociality corollary noted the importance of accurate interpersonal prediction in social interactions:

- to the extent that one person construes the construction processes of another, he may play a role
in a social process involving the other person. (Kelly, 1955, p.95)

Therefore, accurate interpersonal prediction requires the ability to take another's perspective and view the world "through their eyes." Kelly defined a "role" as "an ongoing pattern of behavior that follows from a person's understanding of how the others who are associated with him in his task think" (Kelly, 1955, pp. 97-98). Role constructs describe the social expectations that one has of others. Kelly noted that much of our social life is controlled by the comparisons we make between ourselves and others. He argued that in order to play a constructive role in relation to another person, we must not only be able to view the world through the "eyes" of another, but we must also have some acceptance of him and his way of seeing things.

When a person's construct system is extremely "lopsided," it is very difficult to take the perspective of another, and therefore play a constructive role (Hayden, 1982). Construct "lopsidedness" is the tendency to make nearly exclusive use of one pole of a construct (Applebee, 1976). This lopsidedness reduces the construct system's predictive accuracy because most events are judged as being the same (Hayden, 1982). Construct "lopsidedness" impedes accurate interpersonal prediction because it interferes with an individual's ability to "decenter" and to imagine the
possibility of a viewpoint other than one's own. In a study of psychopaths, Widom (1976) reported the presence of construct lopsidedness using the REP grid methodology. Hayden (1982) proposed that psychopaths inability to acknowledge unlike-self opinions is because they cannot perceive invalidation messages sent by others. Therefore, they are unaware of the mismatches in their construct systems and the events they are trying to predict. Because they do not "pick up" on these invalidational messages, there is no experience of revising their construct system. Inaccurate interpersonal prediction has also been found in depressed adults. Relative to normal adults, depressed adults were found to perceive a significantly greater psychological distance of self from others (Ashworth, Blackburn, & McPherson, 1982, Space, Dingemans, & Cromwell, 1983). Hewstone, Hooper, and Miller (1981) suggested that the depressed person's alienation from others implied by a large self-other distance may be a way of controlling social outcomes, even though those outcomes may be negative.

Kelly argued that our constructs about our own role must be validated in terms of the expectancies of the persons we are socially involved with. When our role constructs are "put to the test," invalidation by others may make it necessary to consider revision and/or replacement of our construct system. Sometimes this transition can present problems. Kelly suggested that we experience emotions when
our construct systems are challenged or are undergoing change (Beck, 1988). Kelly's "transitional constructs" concern the process of this change. Of particular relevance to the present study are the transitional constructs of "threat" and "hostility."

**The Transition of Construct Change**

Emotionality is conceptualized by Kelly as a reaction to or anticipation of an event 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. "Threat" is a transitional construct which is described as the "awareness of imminent comprehensive change in one's core structures" (Kelly, 1955, p. 489). As stated earlier, core structures involve constructs about "self" as well as core role structures. Therefore, imminent changes in the "self" or "self in a social process" will be perceived as threatening.

Kelly's construal of "hostility" as a transitional construct is somewhat different than the customary definition. Webster (1972) defined hostility as "antagonism, opposition, or resistance in thought or principle" (p. 402). Kelly defined hostility as "the continued effort to extort validational evidence in favor of a type of social prediction which has already proved itself
a failure" (1955, p. 510). Noted is the inherently social nature of hostility in Kelly's definition.

Hostility according to personal construct theory is viewed as a "protective" action to threat of core construct change in the face of continued invalidating evidence from the environment. When faced with a barrage of invalidating evidence about one's core constructs, there are several options a person may take to adapt or resolve the problem. First, a person may concede that his constructs need to be altered or replaced. In other words, he can change himself. Second, he can replicate the "experiment" and see if his predictions are validated a second time. Third, he can try to alter the events in an effort to make them conform to his original expectations. In the latter option, the person attempts to change the environment to "fit" his constructs, even though the evidence he has received has consistently invalidated the predictions based on those constructs.

Kelly gave an example of hostility in an interpersonal situation. A person construes another individual and makes a prediction about him which turns out to be inaccurate. In order to protect himself from the threat or anxiety of revising his constructs, the person sets out instead to make the other individual into the kind of person he predicted he was in the first place. Therefore, hostility is an adaptational process in anticipation or response to threats (potential change in core constructs due to invalidating
feedback from the environment). Kelly noted that "hostility arises when one cannot live with the results of his social experimentation" (p. 512).

In the process of hostility, instead of revising or abandoning his constructs which have proved to be misleading or inaccurate, the individual takes further steps to alter the environment, including other people, to fit his hypotheses about them. If he is successful in his "hostility" then his inaccurate constructs will be validated and he does not have to change! It is important to realize that core constructs, including core role constructs, are more resistant to change than "peripheral" constructs, which are those constructs that do not involve modification of one's core structure (Kelly, 1955). Therefore, hostility is more likely to occur when core constructs about one's "self" and one's "role" are threatened.

Beck (1988) attempted to empirically measure transitional constructs as a response to invalidation. Beck defined hostility and Kelly's construct of "constriction" as defensive processes that occur in order to convert an event that disconfirms expectations into one that offers confirmation of current construct systems. "Constriction" occurs when a person narrows his perceptual field to deal with invalidation (Kelly, 1955). Beck described this process as subtracting from reality to prevent the detection of error in one's construction system.
By ignoring or denying certain events because they would invalidate his predictions, the person can maintain his current construct system without revisions. The constricting person attempts to minimize invalidation by withdrawing from events while the hostile person attempts to change events to "fit" his construct system.

In Beck’s study, subjects involved in an experiential learning training group completed REP grids on four occasions over a two semester period. The grids were designed to examine interpersonal processes and the individuals’ behavioral style in social situations. In addition, the subjects completed a questionnaire specifically designed to measure participants’ experiences of emotional states as defined by Kelly (1955). Seven subscales were derived, including threat, fear, anxiety, guilt, hostility, constriction, acceptance, and aggressiveness. Beck found that hostile individuals, as compared to the nonhostile group, reported greater feelings of threat and fear. Kelly related these two transitional constructs to invalidation of core constructs. One can speculate, therefore, that when core constructs are invalidated, a person responds to threat and fear of core construct change with the process of hostility.

Participants in Beck’s study who reported a constricting response experienced more guilt and anxiety than those who were not constricting. Beck hypothesized that constricting
individuals were reacting in a much less assertive way to disconfirming data about the situation and others versus the hostile person's more assertive reaction to invalidating evidence concerning his self-identity.

**Hostility and Alienation**

Hostility in an interpersonal situation involves the person trying to distort invalidating evidence received from another person in order to "fit" his construct system. Therefore, it can be presumed that the hostile person is not making accurate interpersonal predictions.

What might be the reasons for and/or implications of "forcing" one's constructs onto others? As reviewed above, one result might be a greater level of differentiation, distance, or alienation from others. In an examination of how personal construct theory relates to social and cultural alienation, Kalekin-Fishman (1993) argued that hostility is the socially determined behavior of alienated individuals. She described how the processes of progressive differentiation of people cause alienation. She noted that the person who feels alienated from others perpetuates their alienation by their own hostile actions. In other words, as we see others as less like ourselves, we are more likely to feel alienated from them. In turn, alienation from others makes it less likely we will make accurate interpersonal predictions concerning our social roles. As our predictions are invalidated, we are not able to "learn by experience"
and react in a hostile way. This reaction only serves to maintain the inaccurate construct system from which we are operating. It appears, then, that the hostile individual is caught in a vicious cycle of feeling alienated, misconstruing, extorting evidence to support his misconstruals, and in the end, feeling alienated again.

Thus far, the basic tenants of personal construct theory and the construal of intra- and interpersonal processes have been explored. The remainder of this review will focus on the application of PCT to the Type A behavior pattern, particularly the construct of hostility.

Models of Hostility/Type A Behavior Pattern and Health

Persons with the Type A behavior pattern (TABP) are believed to be at greater risk for coronary heart disease because they respond to various stimuli with enhanced, sympathetically mediated physiological activity. This chronic pattern of repeated and pronounced reactivity is believed to initiate and hasten the development of coronary artery atherosclerosis (Williams, 1975). Recent research has suggested that not all aspects of the global Type A behavior pattern are pathogenic, but only those concerned with hostility and anger (Williams, 1987). Smith (1992) defined "hostility" as a set of negative attitudes, beliefs, and appraisals concerning others. No consensus has been reached concerning the "toxic" elements of the TABP, however, research continues to focus on the relationship
between TABP, it's various components and health. Although the TABP was originally described and studied as a constellation of behaviors (Friedman & Rosenman, 1974), current models of TABP/hostility and health are multidimensional in nature, including constructs such as arousal, emotion, and cognitions. Most of the models described below have been applied to both the global TABP and hostility constructs.

**Psychophysiological reactivity model.** This model suggests that hostile people display larger increases in blood pressure, heart rate and stress-related hormones in response to potential stressors (Williams, Barefoot, & Shekelle, 1985). Their anger proneness and increased vigilance of their social environment produce heightened psychophysiological reactivity. As noted above, prolonged reactivity is hypothesized to initiate and hasten coronary artery disease. A metaanalysis of the relationship between TABP and physiological responsivity (Harbin, 1989) found that males identified as exhibiting the TABP responded to cognitive and psychomotor stimulus situations with greater heart rate and systolic blood pressure responses. In addition, the relationship between TABP and physiological reactivity was not evident among females, was more evident for some cognitive tasks than others, and the strength of the relationship was dependent on how the TABP was assessed. In a study of an occupationally diverse group of 568 adults,
results indicated that only the hostility dimension of the TABP was significantly related to physiological reactivity and recovery after a stress interview and a color-word conflict task (Ganster, Schaubroeck, Sime, & Mayes, 1991). One limitation of a strictly physiological approach is individual differences associated with the tasks used as "stressors" (Smith, 1992). As noted in the metaanalysis above, reactions varied according to the type of task. Research has shown that those displaying the TABP and/or hostility exhibited cardiovascular reactivity to situations involving "harassment" as compared to performing the task alone (Diamond, et al, 1984; Suarez & Williams, 1989, 1990). Smith (1992) has noted the inconsistent findings in this area and suggested that research with interpersonal stressors likely to engage hostile subjects might be appropriate. This observation reiterates the social nature of hostility and the importance of looking at "self" in comparison to others as the hostile person is interpersonally challenged.

Psychosocial vulnerability model. This model identifies psychosocial factors as related to hostility and health. One would expect that hostile people experience a more taxing interpersonal environment (Smith & Frohm, 1985). High scores on hostility measures have been found to be associated with high levels of interpersonal conflict and
low levels of social support (Hardy & Smith, 1988; Houston 
& Kelly, 1989; Smith & Frohm, 1985). High hostility scores 
have also been associated with more frequent daily hassles 
and increased levels of major negative life events (Hardy & 
Smith, 1988; Smith & Frohm, 1985). Therefore, it appears 
that the more taxing interpersonal environment includes 
increased perception of stress coupled with increased 
conflict and lack of support from others. This type of 
profile may make hostile persons more susceptible to 
continued physiological responsiveness. One of the 
limitations of this model is that many of the psychosocial 
variables associated with hostility are also correlated with 
neuroticism, which may confound the findings (Smith, 1992).

Health behavior model. This model purports that hostile 
people may be at risk for disease due to poor health habits 
(Leiker & Hailey, 1988). Several studies have found that 
individuals scoring high on hostility measures reported less 
physical exercise, less self-care, more alcohol use (Leiker 
& Hailey, 1988), greater body mass index (Houston & Vavak, 
1991), and heavier cigarette smoking (Koskenvuo et al, 
1988). It has also been suggested that hostile individuals 
may be more noncompliant with treatment (Suls & Sanders, 
1989). The problem with this model is that the underlying 
mechanisms of the association between hostility and the 
increased likelihood of unhealthy behavior are unclear 
(Smith, 1992).
Transactional model. Smith and Rhodewalt (1986) argued that older "trait" approaches to TABP and hostility may artificially simplify what is really complex relationships among psychological processes, physiological relationships, and environmental characteristics. They purported that individual differences in physiological reactivity represent only part of an interactional system. Their model suggests that TABP characteristics, including hostility, are reciprocally related to levels of environmental challenge and demand. In other words, rather than simply reacting to external challenges, those individuals exhibiting the TABP, relative to those exhibiting the "Type B" behavior pattern, appear to create challenges and demands through their cognitions and behaviors. Instead of a simple stimulus-response model, Smith and Rhodewalt's (1986) model assumes that individual differences in physiological responses to stressors may be accompanied by a self-perpetuating cognitive-behavioral style that increases the stressfulness of the environment, which would, in turn, increase the frequency, degree and duration of reactive episodes. (p. 231)

Those exhibiting the Type A behavior pattern, through their choices, appraisals, interactions, and self-evaluations, actively operate upon their environments in ways that should influence the frequency, duration, and intensity of
stressors, and, as a result, episodes of cardiovascular reactivity (Smith & Anderson, 1986; Smith & Rhodewalt, 1986). By anticipating provocation and mistreatment from others, by interpreting the action of others as reflecting hostile intent, by behaving overtly antagonistically, and by mistrusting pervasively, hostile people are likely to elicit and exacerbate interpersonal conflict in their daily lives. This cognitive-behavioral style would also likely undermine the available levels of social support. Once created, this more taxing and less supportive environment would tend to reinforce and maintain the hostile person's characteristic thoughts and behaviors. This is similar to the "vicious cycle" of hostility/alienation mentioned previously. In this perspective, the prolonged physiological reactivity linking hostility and health reflects increased reaction to the unavoidable irritants experienced by both hostile and nonhostile people and the additional irritants created by hostile interaction with others (Smith, 1992). The psychosocial vulnerability previously described is seen as reflecting a reciprocal interaction between hostile people and their social environments.

The transactional model maintains that persons exhibiting the TABP (including the element of hostility) construct a challenging and demanding environment in principally five ways: (a) they choose to enter more objectively challenging situations; (b) they appraise a
given situation as more challenging and demanding, regardless of the actual circumstances; (c) their cognitive coping behavior serves to prolong contact with the stressor; (d) their expression of overt Type A behavior (e.g., hostility, competitiveness) elicits like behavior from others; (e) they selectively attend to negative feedback and therefore perceive an increased need for aggressive striving.

The transactional model of TABP/hostility and health complements the psychophysiological, psychosocial, and health behavior models by recognizing the importance of the "person" as an active agent in their interaction with the environment. The transactional model is also the most consistent with personal construct theory as it maintains that how the person "construes" his world is an essential ingredient in determining what is stressful. In order for an event to be labelled as stressful, an individual must perceive it to be threatening and challenging. Lazarus and Folkman (1984) referred to this as the appraisal of an event. Kelly (1955) believed that an event would be threatening or stressful only if it was construed in such a manner. It is then the "transitional constructs" such as threat and hostility would be enacted in an adaptational process to cope with an environment that did not "fit" with the person's construct system and was likely to have an
impact on the person's understanding of himself and the world.

Several variations of the above models have been used to study themes that have been prevalent in the "constructs" of those exhibiting hostile Type A behavior. Based on behavior theory, Glass' (1977) control theory discussed the importance of "control" over the environment. Price's (1982) cognitive-social learning model maintained that a set of irrational cognitive beliefs underlie the hostile, competitive style of the TABP. Another theoretical perspective is based on studies of self-referencing and coronary heart disease risk (Scherwitz & Canick, 1988).

The "Control" Construct

Based on experiments which examined the reaction of those exhibiting the TABP to uncontrollable stress, Glass (1977) conceptualized TABP as a "style of response which is designed to assist the individual in adapting to stressful events which threaten his sense of environmental control" (p. 166). Glass' research showed that those individuals who scored high on a measure of the TABP struggled to assert and maintain control over experimentally manipulated uncontrollable stressors. When their active coping efforts eventually extinguished in the face of repeated failure, these subjects showed signs of frustration, exhaustion, and learned helplessness. Glass suggested that the pattern of alternating between active coping ("hyperresponsivity") and
giving up ("hyporesponsivity") may be related to underlying physiological and neuroendocrine processes which cause a heightened vulnerability to coronary artery disease. Based on studies including cue salience, Glass hypothesized that those exhibiting TABP might be more prone to perceptual distortion in uncontrollable situations due to lack of attention to cues which indicate a lack of control.

Although Glass' subjects were mostly college students, there is some evidence from research on job stress to support the "control" and heart disease connection. Two articles of environmental stress, reactivity and coronary artery disease (Krantz, Contrada, Hill & Freidler, 1988; Krantz & Raisen, 1988) reviewed evidence that showed that those individuals involved in occupational settings perceived as having high demands and low levels of control over the job were associated with increased coronary risk.

**Exaggerated social control.** A recent cluster analysis of a prospective study of the TABP as a predictor of heart disease (Houston, et al, 1992) found that, in addition to identifying hostility as a predictor, a pattern of characteristics that reflected pressured, controlling, socially dominant behavior was found to be predictive of coronary artery disease. In his work with coronary patients Wright (1988, Wright, et al, 1990) has observed that those exhibiting the TABP tend to be inappropriately controlling of others, particularly in work, family, and other social
situations. He has termed this tendency for exaggerated social control "nonmutuality." Brown and Smith (1992) examined the effects of exerting social influence or control on cardiovascular responses in married couples. Interestingly, some sex differences did occur. Husbands who attempted to exert social influence or control over their wives also displayed larger increases in systolic blood pressure, increased reports of anger, and a more hostile interpersonal style. Wives attempting to influence their husbands displayed a more hostile interpersonal style but did not have the accompanying physiological reaction and did not report increased anger. It is suggested from this study that hostility in interpersonal situations may have gender specific effects.

Powell (1992) hypothesized that underlying the perceptions of low perceived control is a belief in pure environmental determinism, where the environment is blamed for problems. A related belief is that the environment is always malleable and can always be changed with persistence. High perceived control emerges from a belief in reciprocal determinism, which considers the cause of problems from multiple perspectives and a related belief that the environment may not be malleable despite persistence. Thus, low perceived control emerges from persisting in attempts to control the uncontrollable. High perceived control emerges from knowing when and how to switch from trying to bring the
environment in line with one’s wishes to bringing oneself in line with the environment.

Powell’s ideas concerning the cognitive underpinnings of coronary-prone behaviors and the general construct of "control" are quite consistent with personal construct theory. Kelly (1955) argued that man is in the "business" of predicting and anticipating events. When his predictions do not "fit," his constructs are invalidated. This can lead to a sense of meaninglessness or feeling "out of control" of the environment, since the events occurring do not correspond with what was anticipated. Lack of attention to cues which indicate a loss of control is consistent with Kelly’s construct of hostility where one adapts by ignoring the invalidating evidence and exhorting evidence consistent with the distorted construct. When one responds to invalidation with "hostility," one attempts to "force fit" his constructs by bringing the environment in line with his wishes instead of revising or replacing the distorted construals, or bringing oneself in line with the environment. One obvious result of continued coping with invalidation in this manner may be increased differentiation and alienation from others, the "vicious cycle" of hostility described previously.

A Cognitive-Social Learning Model of TABP/Hostility

Price (1982) proposed a cognitive-social learning model of psychosocial risk for coronary artery disease based on
three core constructs or personal beliefs. The three "beliefs" are that one must constantly prove oneself through achievements, that no universal moral principle exists, and all resources are scarce. According to the proposed model, the essence of the TABP centers around the belief that one needs to prove himself. Individuals with these constructs purportedly feel their self-esteem is contingent upon external rewards and that they must "do more" and "try harder" to cope with chronic feelings of inadequacy. Since they believe that external rewards are limited and "good" intentions and actions are not necessarily the best means of achieving them, they are constantly driven by time pressures, competitiveness, and are hostile when someone gets in their way.

Several research studies (Watkins, Fisher, Southard, Ward & Schechtman, 1989; Watkins, Ward & Southard, 1987; Watkins, Ward, Southard & Fisher, 1992) have attempted to provide empirical support for a TABP belief system based on Price's model. Using a questionnaire designed to measure the three core beliefs outlined above, Watkins, et al (1989) found the identified beliefs were significantly associated with measures of global TABP, hostility, physiological mediators of coronary artery disease, and psychosocial distress. Watkins, et al (1992) showed that high scores on the beliefs questionnaire were related to poor quality of
social support, greater perceived life stress, and, particularly in males, cynicism.

Price's (1982) views are analogous to those presented by personal construct theorists. The belief that one must prove oneself by accomplishments suggests that those exhibiting the TABP base self-evaluation on how others evaluate (validate) them. She noted that persons exhibiting the TABP seem to have an excessive reliance on others for validation of personal feelings and actions. The belief that "resources are scarce" implies that there may not be enough "validation of self to go around," therefore, persons with this belief more actively pursue activities/encounters that are self-validating. The belief that "no universal moral principle exists" suggests that there are no universally accepted criteria for validation, such as a demonstrated association between good actions and positive consequences. This belief implies that the environment is "fickle"—its judgments (validational evidence) do not occur in an orderly, cause and effect fashion, but are unpredictable, varying due to the social context, situation, and individual. Therefore, to obtain self-validation, one would have to expend increased effort and try to manipulate or control the "fickle" environment by "forcing" one's constructs onto the "unpredictable" environment—Kellian "hostility."
Several studies have attempted to empirically test a cognitive-social approach to the TABP and hostility. In a study testing what they labeled a "self-worth contingency" model of TABP, Martin, Kuiper, and Westra (1989) found that individuals identified as exhibiting the TABP were more likely to endorse dysfunctional attitudes indicating unrealistic contingencies for self-worth. They also reported higher levels of depressed affect. Fontana, et al. (1989) compared the construct of hostility in patients with a positive history for coronary heart disease and a group of patient controls. Hostility was found to differentiate subjects with a positive history from those without such a history. Persons scoring high on hostility measures also scored higher on measures of "self-worth by social comparison", "playing hardball with others" and self-criticism. Hostile subjects also scored high on a measure of "dependency on others for validation." The authors of this study suggested that hostile persons are in continued conflict with their environment because of their excessive desire for validation from others on one hand, and a desire to oppose others as a self-protective action on the other. This hypothesis is compatible with the Kelly's (1955) notion of man's need to test predictions for accuracy but resisting reconstruction in the face of invalidation by the use of "self-construct protective" hostility.
 TABP "moods" or "states". Price (1982) proposed that the TABP reflected a range of moods or "psychological postures" depending on the "state" of the person as they interacted with the environment. These postures are similar to what Glass (1977) labelled the "hyperresponsivity" and "hyporesponsivity" conditions discussed earlier. The "superman" posture is the "proving myself" state. In this state, the person involves himself in an extreme amount of goal-oriented activity. This state seems to reflect the actions of a person with low self-esteem who has reasoned that the route to a sense of security (validation of core role constructs) is through recognized tangible accomplishments. When the "superman burns out," is criticized (invalidated), fails to meet his own standards, or experiences a traumatic event, the second "state" of depression is likely to ensue. The "superman" state functions as a strategy for coping with low self-esteem. When all the efforts fail, self-doubt and accompanying depression emerge. To avoid possible scrutiny by others, the person may temporarily withdraw. In order to escape the depressive state, persons exhibiting the TABP can resume the "superman" effort or distort the facts and cope with the anger toward themselves by directing it at others. This is consistent with Kelly’s (1955) view of hostility. Rather than change their self-constructs after continued invalidation, they try to make events "fit" their
constructions. Price noted that people can shift in and out of these states frequently in their effort to "protect" their sense of self.

**Gender differences.** Price's model proposed some interesting sex differences in how the TABP is exhibited. She believed that the proposed Type A beliefs and fears are the same for both males and females. However, due to socialization processes, the Type A behaviors and characteristics are manifested differently in females. Prior research in sex differences has indicated that, when self-esteem is threatened, males will turn against an outside object, whereas females engage in more self-blame. Therefore, since the TABP is essentially a coping mechanism for threatened self-esteem, males should exhibit more interpersonal hostility and females should show more self-directed distress such as self-doubt and depression. In her work with coronary patients, Price has observed that, in relation to the TABP "states" described above, women tend to remain in the depressed state longer than men. She reasoned that women have not received the social sanctions for openly expressing hostility and anger, therefore are more likely to stay in the depressed "posture." Grimm and Yarnold (1985) examined the relationship between sex-role orientation and the TABP. Using Bem's Sex Role Inventory (Bem, 1974), the study showed that, irrespective of sex, those exhibiting the TABP were significantly more instrumental (masculine) and
less expressive (feminine). In a study examining trait argumentativeness, Rancer and Dierks-Stewart (1985) found that subjects classified as instrumental (masculine) were significantly higher in trait argumentativeness than subjects identified as expressive (feminine). These studies provide some empirical support for Price’s assertions concerning sex role differences in the manifestation of Type A behaviors.

**Type A beliefs and interpersonal processes.** Price aptly noted that one consequence of the Type A belief pattern and coping style is a decrease in the quality of interpersonal relationships, or isolation from others. An excessive reliance on others for validation can have tragic effects in relationships. When a person stakes so much of his sense of well-being on the approval (or avoidance of disapproval) on others, inevitably, both self-directed and other-directed hostile feelings and behavior result as a reaction to invalidation.

In a study designed to test the social cognitions of hostile persons in interpersonal situations, Allred and Smith (1991) divided subjects into high- and low-hostility (Ho) groups based on their scores on the Cook and Medley hostility scale (Cook & Medley, 1954). High- and low-Ho males then engaged in either a neutral or hostile social interaction with a confederate. In the neutral condition,
statements provided to the confederate were designed to provide a neutral or ambiguous interaction. In the hostile condition, statements were designed to elicit resentment and anger in the subject. Following the interaction, subjects were asked to rate the extent to which 30 different trait adjectives described the confederate. The adjectives included the four categories of hostile, friendly, generally negative, and generally positive. Subjects were also asked to rate a hypothetical person on the same adjectives. It was hypothesized that, due to perceptual biases, the hostile subjects would generate more hostile ratings of both their discussion partners and the hypothetical person. Hostile subjects were also expected to recall a greater number of hostile adjectives after the antagonistic social interaction. It was also anticipated that hostile subjects would recall fewer friendly adjectives, but that there would be no difference in the recall of generally positive or negative adjectives. Consistent with predictions, hostile subjects rated their partner and the hypothetical person as more hostile and less friendly. On the incidental recall task, only hostile individuals showed increased recall of hostile adjectives and only following the hostile social interaction. Hostile subjects in Allred and Smith’s study also responded to the social interactions with larger increases in anger. The authors hypothesized that hostile
persons are likely to construe others in a hostile light and that schema can be activated or primed in appropriate contexts. In Kellian terms, it could be hypothesized that hostile persons have a tendency to see others as a potential threat to core constructs in certain interpersonal situations because of a differing view about the self that others have previously invalidated.

Hardy and Smith (1988) examined the level of physiological reactivity and the psychosocial profile of hostile persons during interpersonal conflict. High- and low hostile males role-played interactions involving high and low levels of interpersonal conflict. Each of six role-plays were designed as either innocuous (low conflict) or disagreeable (high conflict). The experimenter was blind to the subject's level of hostility. Results indicated that hostile individuals reported more anger proneness and a more cynical and disparaging view of others and tended to behave in a more hostile and less friendly manner during both the high- and low-conflict situations. Hostile individuals displayed greater diastolic blood pressure reactivity to the high conflict interaction and reported increased stress and less social support. The authors suggested that the social orientation of cynically hostile persons may create a stressful interpersonal environment that undermines social ties which may increase their vulnerability to disease.
The findings in these studies are comparable to the previously cited studies by Adams-Webber and colleagues which suggested that negative affect is associated with the perception of increased differentiation and alienation from others.

**Self-reference and Coronary Heart Disease**

One additional theoretical perspective concerning coronary heart disease (CHD) risk that coincides with a personal construct perspective was developed from a series of research studies pertaining to the idea that frequent self-reference in speech is associated with TABP and hostility. Scherwitz and Canick's (1988) review summarized these findings, which essentially found a connection between the use of self-references such as "I, me, my," and "mine," and TABP, anger intensity, and vascular reactivity. Their basic theoretical approach is that the psychosocial factors that are associated with (CHD) risk are manifestations of an underlying process of self and identity. The risk for CHD stems from a misalignment of self and context. This misalignment is reflected in language...language is a primary vehicle for acculturation...language helps define an individual's identity. (p. 158)

Their definition of self is quite similar to Kelly's in that they view the "self" as a "psychosocial construct that
serves to make meaning in and of the world” (p. 157). They proposed that identity is formed and maintained by a collaboration of self and others through biological, psychological and social modes. They noted that "self-referencing serves linguistically to cement and patch identity while simultaneously signifying what is not identity" (p. 159). They noted that an "I" not only distinguishes itself from others (not "I"’s) but requires others in order to distinguish itself. They hypothesized that excessive self-referencing indicates a lack of balance in a person’s sense of self and identity. Scherwitz and Canick believed that the use of frequent self-references is indicative of increased self-involvement. Since self-involved individuals are preoccupied by their own thoughts, feelings, and behaviors, they are less able to focus on others’ experiences. Preoccupation with self may then be detrimental in one’s social roles with others. Scherwitz and Canick (1988) theorized that an overly vulnerable self identity constantly perceives and experiences threat to either the agent (I) or the agency (my). When threatened, hostility is used as a coping mechanism against the either the loss of one’s perceptions about self or to regain possession of one’s objects, attributes, thoughts, or feelings. Scherwitz and Canick’s model is similar to Kelly’s (1955) idea about the "self" as a construct and the
process of comparing oneself with others in core role development. The use of hostility in threatening situations is consistent with the personal construct definition of hostility. However, Kelly’s use of "hostility" is taken a step farther. In Scherwitz and Canick’s model, hostility is viewed as a defensive reaction against a vulnerable self-concept. This implies that the individual passively "reacts" in a hostile way to threats to self. Their model does not follow through, however, with how the hostile person acts or affects the environment. The use of "hostility" in Kellian terms implies the person as an active agent, who is capable of "imposing" his constructs onto the world in an attempt to make the world act according to his wishes. The two models have some commonalities and application of personal construct theory expands the self-referencing model in a manner that is more consistent with the transactional models of hostility/TABP.

In summary, much of the current research focusing on transactional models of the Type A behavior pattern and the "toxic" component of hostility have recognized the importance of the "person" as an active, construing agent. Personal construct theory provides a "structure" for understanding the construing person. According to Kelly’s (1955) theory, the person’s core constructs about himself and his role in the lives of others play a integral and
reciprocal part in how he adapts to an environment where he seeks to anticipate and predict events. Based on Price's (1982) model of the TABP, the person exhibiting the TABP may have difficulty adapting because he tends to view the world differently than others, particularly in terms of beliefs/constructs about "self/not self." These beliefs include the necessity to "prove oneself" based on external validation, the scarcity of "validational evidence" and the notion that there are no orderly, cause and effect principles upon which to rely on in receiving validation from others. When self construals based on these beliefs are not validated, the transitional construct of "hostility" is often employed to try to extort evidence of validation from others. The nature of that hostility can take various forms, depending on sociocultural as well as individual variables. Price suggests that males may be more "culturized" to exhibit hostility in an aggressive, angry fashion. Females may "extort" validating evidence (Kellian hostility) by less assertive, self-critical methods. Based on Kalekin-Fishman's (1993) personal constructivist perspective of alienation/hostility, the consequences of continued, chronic use of hostility may result in increased perceived differences and subsequent alienation from others, therefore perpetuating the need for the use of the "hostility" construct.
The figure below summarizes what might be the process of "Kellian hostility" in those exhibiting characteristics of the TABP. First a personally challenging situation is anticipated or occurs. Because of the beliefs/constructs about "self," the person exhibiting Type A characteristics appraises the situation as a threat to core constructs. In order to "extort" evidence from the environment to support his constructs, the person may exhibit several different "states" in the "hostility" process. The person may find that behaving in an angry, aggressive stance with "others" as objects of the anger is the best way to "extort" validational evidence. Or, one may participate in withdrawal and depression, using self-blame as the best way to "extort" the evidence needed. As Price's and Glass' models note, this process may be cyclical, where one uses both of these methods of "hostility." The propensity to use one or the other may depend on individual and/or sociocultural factors, such as learned gender roles. Regardless, the resulting implication of the hostility process is validation of previously failed constructs and increased differentiation and alienation from others, which only perpetuates the necessity of using the hostility construct.
Figure 1

The Challenge, Threat, and Hostility cycle

Challenging Interaction ←----- Type A core constructs

(Anticipation or response)

Appraisal of threat to core "self" constructs

Depression Process of Anger
Self-Blame Hostility Other-Blame

Validation of TABP constructs

Increased differentiation/alienation from others

One expression of feeling alienated from others may be a change in constructs concerning how one views "self" in relation to "others." The Adams-Webber studies (1973, 1985, 1992), in addition to several others cited, noted that, based on the golden section hypothesis, optimally we should view others as similar to ourselves approximately 63% of the time. However, due to contextual circumstances such as a change in affective state or stressful imagery, predictable shifts in this optimal level have occurred. One question arises concerning how a personally challenging interpersonal situation, one that may "threaten" core constructs, would affect constructs about "self/others." Thus far, studies have tried to manipulate affective states by simply having subjects role-play or imagine feeling happy, depressed, etc.
What effect might a "personally challenging" interaction have on this "optimal" level of viewing others as similar to ourselves? Research on hostility and TABP suggests that people with these characteristics are more likely to exhibit the behavior when "harassed" or when involved in interpersonal conflict. However, studies concerning this phenomenon are equivocal. For example, the Hardy and Smith (1988) study cited earlier found that individuals scoring high on a hostility measure tended to be more hostile and less friendly during interactions involving both high and low levels of interpersonal conflict. In contrast, Allred and Smith (1991) found that hostile constructs concerning others were activated only by an antagonistic interaction. Therefore, it is unclear whether those exhibiting Type A characteristics are more "vulnerable" in all situations or only to challenging interactions which may "threaten" their core constructs. Whether those same individuals are more likely to react to challenge by increased "self-other" differentiation is also an unanswered question at this time.

If those exhibiting TABP/hostility do alter their "self/other" constructs when challenged, how is that change of construction expressed or exhibited? Based on Glass' concepts of "hyperresponsivity" and "hyporesponsivity", and Price's (1982) idea of psychological "states" that individuals displaying the TABP cycle through, hostility may be exhibited through different avenues. Depending on
individual and sociocultural factors, one might exhibit hostility when challenged by aggressive, angry thought, affect, and behaviors. In this state, the question arises whether one is more likely to change his constructs about others because of a pre-existing perceptual set of "me against the world." Another "state" is one of depression and self-blame. The question here is whether one is more likely to change constructs about "self" since self-doubt and blame may be the way one is "culturized" to extort validation from others. Whether there are gender differences in these various "methods" of hostility is yet another unanswered question.

The intent of this study was to examine the effects of experiencing an interpersonally challenging interaction on individuals' constructs about themselves in comparison to others. To summarize the questions noted above:

1) Are individuals who are "personally challenged" more likely to change their "self-other" constructs in a direction where they view others as less similar to themselves?

2) Do those who exhibit enduring personality patterns consistent with characteristics of TABP more "vulnerable" to changing their "self-other" constructs? What is the nature of change and is it accompanied by a certain affective state? Also, is gender a factor in the nature of that change and affective state?
3) Is an angry affective state associated with a change in constructs about others? Is a depressive affective state associated with a change in constructs about "self?"

Based on the previous research review on the Kellian model of self/other construct development and on what has been learned through research about the TABP, the following predictions were made:

1) It was predicted that when experiencing a challenging situation which threatens core "self" constructs, individuals would feel greater alienation/distance from others, and thus change their views of others to less similar to themselves than after events which are not construed as "threats" to core construct change.

2a) It was predicted that, when challenged, individuals with enduring dispositional patterns consistent with the characteristics of the Type A behavior pattern would be more "vulnerable" to core construct threat and would therefore view others as less similar to the themselves than those who did not acknowledge these behavioral characteristics.

2b) Hostile, angry and/or depressed males, males with an exaggerated need for interpersonal control, and males acknowledging the global TABP, would be more likely to change their constructs about others and view others as less similar to themselves. They would also report more angry feelings after a threat to core constructs.
2c) Hostile and/or depressed females, and females who acknowledge the TABP or an exaggerated need for social control would be more likely to change their constructs about "self" and report more depressive feelings.

3) After a threat to core constructs, it was expected that the nature of the change in the constructs about self in comparison to others would be accompanied by a particular affective state. Those expressing angry feelings were expected to report a change in their constructs about others. Those expressing depressive feelings were expected to report a change in self-constructs.

Hypotheses

In order to test the above predictions, a role-play manipulation method using a "supportive" versus a "challenge" condition was devised. Using a 2 x 2 x 2 repeated measures mixed design, the "challenge" versus "supportive" manipulation was invoked to test the following hypotheses:

Hypothesis 1. The post-manipulation "like-self" rating (LPOST) of Group 2 ("challenge" condition) will decrease significantly from the pre-manipulation "like-self" rating (LSPRE). The post-manipulation "like-self" rating (LPOST) from Group 1 ("supportive" condition) will not be significantly different from the pre-manipulation "like-self" rating (LSPRE).
Hypothesis 2. In Group 2 ("challenge" condition), enduring emotional dispositions will be related to the "like-self" ratings, the "self-change" and "other change" scores and affective state ratings:

Hypothesis 2a. High scores on the Cook and Medley Hostility Scale (HO), the Spielberger Trait Anger Subscale (TANG), the Self-Rating Depression Scale (SRDS), the Way of Life Scale (WOLS), and the Jenkins Activity Survey - Short Student Form (JAS) will predict lower "like-self" scores (LSPOST).

Hypothesis 2b. High scores on the Cook and Medley Hostility Scale (HO), the Spielberger Trait Anger Subscale (TANG), the Way of Life Scale (WOLS), The Jenkins Activity Scale - Short Student Form (JAS), and male sex will predict higher "other-change" scores (OC), higher state anger ratings (SANG), and higher anger mood thermometer ratings (MTA).

Hypothesis 2c. High scores on the Cook and Medley Hostility Scale (HO), the Self-Rating Depression Scale (SRDS), the Way of Life Scale (WOLS), the Jenkins Activity Survey - Short Student Form (JAS) and female sex will predict higher "self-change" scores (SC), higher state depression ratings (DEPR) and higher depression mood thermometer ratings (MTD).

Hypothesis 3. In Group 2 ("challenge" condition), there will be a positive correlation between the "other-change"
scores (OC) and the state anger ratings (SANG) and anger mood thermometer ratings (MTA). There will also be a positive correlation between the "self-change" scores (SC) and the state depression ratings (DEPR) and depression mood thermometer ratings (MTD).
CHAPTER II

METHOD

Subjects
Forty female and 40 male volunteers from the Psychology department at the University of North Texas were used in this study and received extra credit for doing so. A brief explanation of the research was given on a sign-up sheet which was posted for volunteers to sign up for the study.

Procedure
In Phase I of the study, subjects met in groups to complete a pretesting session. At that time, the subjects were given an explanation of the study, read and signed an informed consent form (Appendix A). At the pretesting session, the subjects completed an assessment battery which included demographic information (Appendix B), the Cook Medley Hostility Scale (Cook & Medley, 1954), the Jenkins Activity Survey-Short Student Form (Yarnold, Bryant, & Grimm, 1987), the Way of Life Scale (Wright, Newman, McCormick, & Harding, in press) the Spielberger State-Trait Anger Inventory (Spielberger, 1991), the Self-Rating Depression Scale (Zung, 1965), and the REPgrid. The pretesting session lasted approximately 1-1½ hours. After completing the pretest measures, each subject immediately participated in Phase II of the study.
In Phase II of the study, each subject participated individually with a same-sex confederate in one of two role-play conditions. One male and one female confederate were trained in the role-play conditions by the experimenter using a role-play "script" written by the experimenter (Appendix C). The subjects were not aware of the confederates' status and were told they were participating with another student volunteering for the study.

At the beginning of each individual session, the experimenter introduced the subject and the confederate and gave instructions concerning the rationale and purpose of the role-play (Appendix C). The confederate was not informed of the types of measures used or the scores.

Group 1 was a comparison group of 20 subjects (10 males and 10 females) who participated in a 5 minute "supportive" role-play condition. In this condition, the subject and confederate role-played a discussion between a student and an academic advisor concerning the student's choice of psychology as a major. The confederate played the role of the advisor and was instructed to be supportive and agreeable with the subject, affirming and exhorting the value of the subject's ideas. The confederate was given statements so he/she was able to support either side, given the responses from the subject. Objective statements also ensured some standardization across subjects in the role-play condition (Appendix C).
Group 2 consisted of sixty subjects (30 males and 30 females) who participated in a "personally challenging" role-play condition. This type of task was chosen in an attempt to provide a manipulation that is consistent with the challenge procedures used to induce stress in many Type A studies. In this 5 minute role-play condition, the subject played the role of a student who must confront a professor concerning a grade disagreement. The professor was played by the confederate who was instructed to "personally challenge" the subject in this condition by being disagreeable, unwilling to negotiate, and blaming the "student" for the poor grade. The confederate was instructed to be confrontive and to "challenge" the arguments the student presented, but not to the point of being insulting. As with the "supportive" role-play, the confederate used a list of prepared statements to standardize the challenge procedure (Appendix C).

After the role-play was introduced, the experimenter gave the confederate and subject approximately one minute to prepare for the interaction. The experimenter then left and returned after approximately 5 minutes, at which time the role-play ended. After the role-play interaction, the subject immediately participated in Phase III of the study.

In Phase III, the subject completed an abbreviated version of the REPgrid, the state-anger and depression ratings, and mood thermometer ratings. As a manipulation
check, the subject and confederate each completed an "involvement rating" (Appendix D) in which the subject rated his involvement and the confederate rated his perceptions concerning how involved the subject was in the role-play interaction. A 3 point rating scale was used with a 1 rating indicating the subject was clearly involved in the role-play interaction and a 3 rating indicating that the subject was clearly not involved in the interaction. If both the subject and the confederate rated the interaction as a 3, then the data for that subject would not be included in the analysis and another subject would be recruited to participate in the study. No subjects were rated a 3 by both themselves and the confederate, so no participants were eliminated on the basis of this rating.

Completion of the post-manipulation measures took approximately 20 minutes. When the role-play session and the additional measures were completed, the subject was debriefed and provided with the opportunity to discuss any concerns they had. The subjects were not informed during the debriefing that the other member of the role-play interaction was a confederate in order to avoid contaminating the nature of the role-play interaction for future subjects. When the study was completed, a debriefing letter was sent to each subject with full disclosure concerning the nature of the experiment (Appendix E).
Instruments

Two types of measures were employed to try to portray individual difference variables. Measures of persistent emotional dispositions were included to try to delineate individual vulnerability to self/other construct change in the "challenge" condition. These included measures of hostility, global Type A behavior pattern, exaggerated social control, and trait anger and depression. Other measures attempted to assess situational affective states during or after the role-play condition. These included two different measures each of situational anger and depression.

Cook and Medley Hostility Scale. The Cook and Medley Hostility Scale (HO) (Cook & Medley, 1954) was derived from the Minnesota Multiphasic Personality Inventory (Hathaway & McKinley, 1943). The HO scale has been used extensively as a measure of the "hostility" component of the Type A behavior pattern (see Smith, 1992 for review). This scale was completed during the pretesting session and consists of 50 true-false items designed to measure the construct of hostility, originally characterized by a dislike for and distrust of others. The range of scores on the HO scale is 0-50 with a higher score indicative of increased levels of hostility (Appendix F). The HO scale displays relatively high levels of internal consistency, with Cronbach's alphas averaging about .80 (Smith & Frohm, 1985). In a sample of medical students and middle-aged adults, the 1- and 4-year
test-retest correlations were found to be greater than $r = .80$ (Barefoot, Dahlstrom, & Williams, 1983), indicating adequate temporal consistency. Studies using this scale have also shown it has adequate validity (see Smith, 1992 for review of validity data).

**Jenkins Activity Survey - Short Student Version.** The Jenkins Activity Survey (JAS), student version (Glass, 1977) is a variation of the Jenkins Activity Survey, Form C (Jenkins, Zyzanski, & Rosenman, 1979). The JAS was constructed to measure various components of the Type A behavior pattern. The original student version consists of 44 multiple choice items (of which 21 are scored). The "Type A" scale assesses the multifactorial construct of the "coronary-prone" behavior. In addition, a unit-weighting procedure is employed in scoring the student version, in contrast to the discriminant-weighting procedure used with the adult form. Studies have indicated that the student version of the JAS has satisfactory internal consistency and excellent test-retest reliability (Yarnold, Mueser, Grau, & Grimm, 1986). In the present study, a modified, short-form version of the student JAS (Yarnold, Bryant, & Grimm, 1987) was administered to subjects during the pretesting session (JAS- Appendix G). The short form of the student JAS consists of the 21 scored items from the original student version (Glass, 1977). In a study comparing the long and short forms of the student JAS, Yarnold, Bryant, and Grimm
(1987) found that the short form provides factors that are more independent than those of the long form, provides comparable factor structures, and provides comparable distributions of student JAS scores.

Way of Life Scale. The Way of Life Scale (WOLS) is a scale developed by Wright et al. (1990) as a means of assessing exaggerated social control or "nonmutuality." This construct pertains to a form of social/interpersonal control which is thought to be related to the Type A behavior pattern. The original WOLS contained 43 true-false items. However, a refinement of the WOLS (Wright, Newman, McCormick, & Harding, in press) contains 43 forced choice items which includes 22 irrelevant pair (filler) items. This scale was developed as a more bias-proof measure for the Type A behavior pattern subcomponent of exaggerated interpersonal control. The range of scores on the forced-choice WOLS is 0-21 with a higher score indicative of exaggerated social control (Appendix B). The WOLS displayed adequate internal consistency, with a coefficient alpha of .73 (Wright, et al, in press). Test-retest reliability was $r = .78$. Validity data indicated the forced-choice WOLS was more like other measures of the Type A behavior pattern than the true-false WOLS, which suggests that the forced choice WOLS may be a more valid measure of the Type A behavior pattern-related subcomponent of exaggerated interpersonal
control. This scale was completed during the pretesting session.

State-Trait Anger Expression Inventory. The State-Trait Anger Expression Inventory (Spielberger, 1991) consists of 44 items which assess the experience and expression of anger. Respondents rate each item on a 4 point scale from "not at all" to "very much so." Item responses are rated from 1 to 4 and then added for a total raw score for each scale. Higher scores indicate a higher level of trait and/or state anger. The entire scale takes approximately 10 minutes to complete. Subjects completed this inventory during the pretesting session and again after the role-play condition. The trait anger scale (TANG) was used as a measure of a persistent emotional disposition which might be a "vulnerability" marker for self/other construct change. The state anger scale (SANG) was employed after the manipulation as a report of the subjects' affective state. Reliability coefficients range from .87 to .93 for the state anger scale and .82 to .84 for the trait anger scale, indicating adequate internal consistency (see Spielberger, 1991 for review).

Self-Rating Depression Scale. The Self-Rating Depression Scale (SRDS) (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 completed this measure in the pretesting session and were instructed to respond to the items based on how they generally feel. The SRDS is 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 reflects minimal symptomatology while a rating of 4 is representative of significant depressive symptomatology. An index score is obtained by summing all values and dividing by 80, the maximum possible score. An SRDS index below .50 indicates the absence of depression, while any value above this is interpreted as indicative of depressive symptomatology (Zung, 1978, 1979). For the present study, the sum of all values rather than the index was used in the analysis (Appendix I). Previous studies have shown adequate reliability and validity (Zung, 1965, 1978, 1979).

Role Construct Repertory Test. The original Role Construct Repertory Test (REP) was designed by Kelly (1955) and modified twice by Landfield (1971 and 1980). The REP utilizes a grid methodology to evaluate the interrelationships that individuals assign to their cognitive constructs. The general administrative instructions direct the subject to create a grid by rating personally known figures on bipolar constructs. The present instrument directed the subject to rate 12 figures on 12
supplied constructs (Appendix J). The twelve figures fulfill a list of twelve role descriptions, including the "self" (mother, father, etc.). The REP format here employed twelve supplied bipolar constructs taken from the Osgood Semantic Differential (Osgood, Suci, & Tannenbaum, 1957). They have been shown to have good discriminatory power in previous research (Adams-Webber, 1985). Subjects were instructed to rate the person listed in the leftmost column on all construct dimensions, moving from top to bottom down the grid. They then moved to the second person, who is again rated on all twelve bipolar construct dimensions. This procedure was continued until all 12 roles, including the "self" were rated on all construct dimensions. For the pretesting session, subjects' rated on a 13 point scale (+6 to -6 and including 0) each figure (role) on each construct dimension. The zero rating was used if the construct did not apply or was not descriptive of the person being rated. The 13 point scale version of the REP grid (REP-Pre) was administered during the pretesting session.

An abbreviated scale version of the REP grid was administered after participation in the role-play condition (REP-abb Appendix J). An abbreviated version of the 13 point rating scale was used. Each person was rated on each bipolar construct, but subjects indicated a rating of 1 for the left side of the construct, 0 if the construct did not
apply, and 2 for the right side of the construct dimension. After the role-play condition, only the denotation of the side of the bipolar construct was needed to derive the "like-self", the "self-change" and "other-change" scores.

REP based scores were used to test several of the hypotheses. The REP evaluates the self-other contrast in a modification of the method developed by Adams-Webber (Adams-Webber & Benjafield, 1973). The "like-self" (LSPRE, LSPOST) score represents the frequency of assignment of self and others to the same pole. This score represents the extent to which an individual categorizes others as similar to themselves. In this present modification the LS score had a possible range from 0 to 132, based on 12 constructs and 12 figures (one of which is the "self" role). Adams-Webber (1985) reported that test-retest correlations ranged from .86 to .95 (Jones, 1954, cited in Adams-Webber, 1985, Sperlinger, 1976) for his original 12 x 12 variant.

Two "self-change" (SC) scores were obtained from the REPgrid completed after the role-play manipulation. The SC score is an indication of the effect of the role-play manipulation on the subjects' views of "self." The range of the SC scores is 0-12 (12 constructs). A "self-change absolute" (SCABS) score was derived by counting the frequency that the subjects' self-ratings changed from pretest to posttest. This included any change in rating, including from one pole to another, from one pole to a
neutral (0 rating) position, or from a neutral (0 rating) at pretest to a pole rating at posttest. A "self-change pole" (SCPOLE) score was derived by counting the frequency that subjects' self-ratings changed from one pole to another from pretest to posttest.

Two "other-change" (OC) scores were derived after each role-play condition. The OC score is an indication of the effect of the manipulation on the subjects' views of "others." and has a range of 0-132 (11 figures and 12 constructs). The "other-change absolute" (OCABS) score was obtained by counting the frequency that the subjects' "other" ratings changed from pretest to posttest. This score included any change, including from one pole to another, from one pole to a neutral (0 rating) position, or from a neutral (0 rating) position to a pole. The "other-change pole" (OCPOLE) score was derived by counting the frequency the subjects' other-ratings at posttest moved to the opposite pole of the construct as compared to the other-ratings at pretest.

Mood Ratings. In addition to the state anger scale described above, the subjects completed three other mood ratings after the role-play condition (Appendix K). These ratings were to assess the situational affective state of the subject immediately after the role-play ended.

A state depression rating (DEPR) was completed in which the subjects rated their current level of depression on a 7-
point scale ranging from "I am very depressed right now" (7) to "I am not depressed at all right now" (1).

In addition to the verbal mood ratings, two mood thermometers were employed as a rapid, concise method for reporting mood states. The subjects were instructed to "circle the face on the thermometer that is most like you feel right now." One thermometer showed facial expressions ranging from "happy" to "sad" and was designed to elicit depressive feelings (MTD). The other thermometer exhibited facial expressions ranging from "happy" to "mad" and was designed to elicit angry feelings (MTA). Each mood thermometer had 7 faces and was calculated on a 7-point scale. Figure 2 contains a listing of the various measures, the scores obtained, and the period in the research protocol they were administered.

Figure 2
Listing of Measures, Scores, and Period Administered

<table>
<thead>
<tr>
<th>PHASE I</th>
<th>PRETESTING SESSION MEASURES</th>
<th>PHASE III</th>
<th>POSTTESTING SESSION MEASURES</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Research Consent Form</td>
<td>Involvement Rating</td>
<td>Role Repertory Grid - Abbreviated Version (LSPOST, SCABS, SCPOLE, OCABS, OCPOLE)</td>
</tr>
<tr>
<td></td>
<td>Demographic Data Sheet</td>
<td></td>
<td>Spielberger State Anger Subscale (SANG)</td>
</tr>
<tr>
<td></td>
<td>Cook and Medley Hostility Scale (HO)</td>
<td></td>
<td>7-point depression rating (DEPR)</td>
</tr>
<tr>
<td></td>
<td>Jenkins Activity Survey-Short Student Form (JAS)</td>
<td></td>
<td>Anger mood thermometer (MTA)</td>
</tr>
<tr>
<td></td>
<td>Way of Life Scale (WOLS)</td>
<td></td>
<td>Depression mood thermometer (MTD)</td>
</tr>
<tr>
<td></td>
<td>Self-Rating Depression Scale (SRDS)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Spielberger Trait Anger Subscale (TANG)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Role Repertory Grid (LSPRE)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

NOTE. PHASE II is participation in the role-play manipulation with no measures completed.
CHAPTER III

RESULTS

Preliminary summary statistics for age and scores on the Cook and Medley Hostility Scale (HO), the Spielberger Trait Anger Subscale (TANG), the Jenkins Activity Survey - Short Student Form (JAS), the Way of Life Scale (WOLS), and the Self-Rating Depression Scale (SRDS), are included in Table 1. Also included are summary data for the post manipulation depression ratings (DEPR), Spielberger State Anger Subscale (SANG), depression (MTD) and anger (MTA) thermometer mood ratings. Results are reported separately for males and females. Reliability coefficients were not performed due to the nature in which the data was collected and recorded.

Hypothesis 1

The first hypothesis predicted that the post-manipulation "like-self" rating (LPOST) of Group 2 ("challenge" condition) would decrease significantly from the pre-manipulation "like-self" rating (LSPRE). It was also predicted that the post-manipulation "like-self" rating (LPOST) from Group 1 ("supportive" condition) would not be significantly different from the pre-manipulation "like-self" rating (LSPRE). A MANOVA was performed that was a 2 x 2 x 2 with repeated measures on the last factor with role-play condition and sex as the between subjects factors.
Table 1

Summary Statistics of Sample

<table>
<thead>
<tr>
<th>Variable</th>
<th>Mean</th>
<th>S.D.</th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
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<td></td>
<td></td>
<td></td>
</tr>
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<td>6.4</td>
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</tr>
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<td></td>
<td></td>
</tr>
<tr>
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<td>4</td>
<td>35</td>
</tr>
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<td>MALE</td>
<td>23.3</td>
<td>7.3</td>
<td>7</td>
<td>39</td>
</tr>
<tr>
<td>TANG</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>FEMALE</td>
<td>17.4</td>
<td>4.4</td>
<td>12</td>
<td>30</td>
</tr>
<tr>
<td>MALE</td>
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<td>12</td>
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<td>3</td>
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<td>SRDS</td>
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<td></td>
</tr>
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<td>FEMALE</td>
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<td>7.5</td>
<td>25</td>
<td>55</td>
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<td>MALE</td>
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<td>7.4</td>
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<td>1.5</td>
<td>1</td>
<td>7</td>
</tr>
<tr>
<td>MALE</td>
<td>2.0</td>
<td>1.1</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>SANG</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>FEMALE</td>
<td>11.6</td>
<td>2.7</td>
<td>10</td>
<td>23</td>
</tr>
<tr>
<td>MALE</td>
<td>13.2</td>
<td>7.2</td>
<td>10</td>
<td>40</td>
</tr>
<tr>
<td>MTD</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>FEMALE</td>
<td>2.8</td>
<td>1.5</td>
<td>1</td>
<td>7</td>
</tr>
<tr>
<td>MALE</td>
<td>2.7</td>
<td>1.1</td>
<td>1</td>
<td>6</td>
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</table>

NOTE. HO=Cook and Medley Hostility Scale; TANG=Spielberger Trait Anger Subscale; JAS=Jenkins Activity Survey-Short Student Form; WOLS=Way of Life Scale; SRDS=Self-Rating Depression Scale; DEPR=state depression rating; SANG=Spielberger State Anger Subscale; MTD=depression mood thermometer; MTA=anger mood thermometer.
and "like-self" ratings as the within subjects factor. A significant main effect was found for role-play condition, \( F (1,78) = 6.68, p < .01 \) and "like-self" ratings \( F (1,78) = 8.11, p < .01 \). The interaction effect of role-play condition and "like-self" ratings was not significant \( F (1,78) = .43, p > .05 \). The effect of sex as a factor was not significant \( F (1,76) = .91, p > .05 \). Sex was not included as a factor in the original hypothesis as it was not expected to have a significant effect on the change in "like-self" ratings. The means and standard deviations for pre- and post- "like self" ratings (LSPRE and LSPOST) by condition and sex are included in Table 2.

Table 2

Means and Standard Deviations for "Like-Self" Ratings

<table>
<thead>
<tr>
<th></th>
<th>Supportive Condition</th>
<th>Challenge Condition</th>
</tr>
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<tbody>
<tr>
<td></td>
<td>Mean</td>
<td>S.D.</td>
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<tr>
<td>LSPRE</td>
<td>79.75</td>
<td>15.56</td>
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<tr>
<td>Females</td>
<td>72.60</td>
<td>12.31</td>
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<tr>
<td>Males</td>
<td>86.90</td>
<td>15.68</td>
</tr>
<tr>
<td>LSPOST</td>
<td>75.55</td>
<td>14.98</td>
</tr>
<tr>
<td>Females</td>
<td>71.20</td>
<td>17.84</td>
</tr>
<tr>
<td>Males</td>
<td>82.29</td>
<td>17.73</td>
</tr>
</tbody>
</table>

NOTE. LSPRE=pre-manipulation like-self ratings; LSPOST=post-manipulation like-self ratings.

To test for simple effects a correlated t-test was performed comparing the pre- and post- "like-self" ratings by role-
play condition. A significant difference was found between the mean LSPRE and LSPOST ratings in the "challenge" condition \( (t = 3.26, df = 59, p < .005) \). The difference between the LSPRE and LSPOST means in the "supportive" condition was not significant \( (t = 1.77, df = 19, p > .05) \). The "like-self" ratings in the "challenge" group decreased significantly after the manipulation but the "like-self" ratings in the "supportive" group did not. Therefore hypothesis one is supported.

Hypothesis 2

The second hypothesis stated that in the "challenge" condition, persistent emotional dispositions of individuals would relate to the post- "like-self" ratings, the "self-change" and "other-change" scores and the affective state ratings.

Hypothesis 2a. This hypothesis proposed that individuals scoring higher on measures of persistent emotional dispositions would show lower post- "like-self" scores (LSPOST). As can be seen in Table 3, HO, SRDS, and TANG had significant and negative correlations with LSPOST. A stepwise multiple regression analysis was performed using the HO, TANG, SRDS, WOLS, and JAS scores as independent variables and the LSPOST score as the dependent variable. Table 4 provides the regression values for this stepwise regression analysis. Only trait anger (TANG) accounted for a significant amount of the variance in the post- "like-
### Table 3

**Correlation Coefficients for the HO, JAS, SRDS, WOLS, and TANG Scores, SEX, and the LSPOST, SCABS, SCPOLE, OCABS, OCPOLE, SANG, DEPR, MTA, AND MTD Scores**

<table>
<thead>
<tr>
<th>Variable</th>
<th>HO</th>
<th>JAS</th>
<th>SRDS</th>
<th>WOLS</th>
<th>TANG</th>
<th>SEX</th>
</tr>
</thead>
<tbody>
<tr>
<td>LSPOST</td>
<td>-.40**</td>
<td>-.04</td>
<td>-.34**</td>
<td>-.04</td>
<td>-.45**</td>
<td>-.14</td>
</tr>
<tr>
<td>SCABS</td>
<td>.05</td>
<td>-.51**</td>
<td>.34**</td>
<td>-.21</td>
<td>.02</td>
<td>.27*</td>
</tr>
<tr>
<td>SCPOLE</td>
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<td>-.01</td>
<td>-.01</td>
<td>.01</td>
<td>-.01</td>
<td>.00</td>
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<tr>
<td>OCABS</td>
<td>.39**</td>
<td>-.06</td>
<td>.29*</td>
<td>.19</td>
<td>.57**</td>
<td>.28*</td>
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<td>OCPOLE</td>
<td>.23*</td>
<td>.05</td>
<td>.05</td>
<td>.15</td>
<td>.28*</td>
<td>.29*</td>
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<tr>
<td>SANG</td>
<td>.36**</td>
<td>.20</td>
<td>.13</td>
<td>.16</td>
<td>.28*</td>
<td>.19</td>
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<tr>
<td>DEPR</td>
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<td>-.14</td>
<td>.50**</td>
<td>-.01</td>
<td>.15</td>
<td>-.02</td>
</tr>
<tr>
<td>MTA</td>
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<td>-.10</td>
<td>.12</td>
<td>.02</td>
<td>.15</td>
<td>.13</td>
</tr>
<tr>
<td>MTD</td>
<td>.02</td>
<td>.21</td>
<td>.17</td>
<td>-.07</td>
<td>-.01</td>
<td>-.02</td>
</tr>
</tbody>
</table>

* p < .05, one-tailed. ** p < .01, one-tailed.

### Table 4

**Stepwise Regression Analysis Using HO, TANG, SRDS, WOLS, and JAS Scores to Predict Post- "Like-Self" Ratings (LSPOST)**

<table>
<thead>
<tr>
<th>Step Variables</th>
<th>B</th>
<th>SE B</th>
<th>Beta</th>
<th>T</th>
<th>p=</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. TANG</td>
<td>-2.02</td>
<td>.53</td>
<td>-.45</td>
<td>-3.83</td>
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<tr>
<td>2. TANG</td>
<td>-1.46</td>
<td>.69</td>
<td>-.32</td>
<td>-2.12</td>
<td>.04</td>
</tr>
<tr>
<td>JAS</td>
<td>.62</td>
<td>.41</td>
<td>.19</td>
<td>1.53</td>
<td>.13</td>
</tr>
<tr>
<td>WOLS</td>
<td>.51</td>
<td>.68</td>
<td>.09</td>
<td>.75</td>
<td>.46</td>
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<tr>
<td>SRDS</td>
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<td>-.02</td>
<td>-0.11</td>
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<tr>
<td>HO</td>
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<td>-.26</td>
<td>-1.73</td>
<td>.09</td>
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</tbody>
</table>

**NOTE:** TANG-Spielberger Trait Anger Subscale; JAS=Jenkins Activity Survey-Short Student Form; WOLS=Way of Life Scale; SRDS=Self-Rating Depression Scale; HO=Cook and Medley Hostility Scale.
self" ratings in the challenge group \( F (1,58) = 14.63, p < .001 \). The higher the trait anger, the more alienated subjects experienced themselves during the challenge condition.

Hypothesis 2b. This hypothesis predicted that higher scores on measures of trait anger and hostility, global Type A behavior, exaggerated social control and male sex would predict higher "other-change" scores (OCABS, OCPOLE), higher state anger ratings (SANG), and higher anger mood thermometer ratings (MTA). As can be seen in Table 3, SEX, TANG, and HO were significantly and positively correlated with OCPOLE and OCABS changes whereas SRDS was also significantly and positively correlated with the latter type of change (OCABS). HO and TANG were positively associated with SANG. No significant correlations were found with the anger mood thermometer ratings (MTA). Stepwise multiple regression analyses were performed using the HO, JAS, WOLS, TANG, and sex as independent variables and the "other-change" scores (OCABS, OCPOLE), the SANG and the MTA scores as dependent variables. Trait anger (TANG) accounted for a significant amount of the variance in the absolute "other-change" score (OCABS) \( F (1,58) = 27.26, p < .001 \). In other words, a higher level of reported trait anger predicted the likelihood that a subject would change his constructs about others from the pre-condition "other" ratings. Male sex accounted for a significant amount of the
variance in the "other-change" pole score (OCPOLE) \( F (1,58) = 5.37, p < .05 \). Males were more likely to change their ratings of others to the opposite pole of the construct. Level of hostility (HO) accounted for a significant amount of the variance in the post-condition state anger rating (SANG) \( F (1,58) = 8.86, p < .01 \). None of the independent variables (HO, JAS, WOLS, TANG, SEX) accounted for a significant amount of the variance for the anger mood thermometer ratings (MTA) \( F (5,54) = .578, p > .05 \). Tables 5 provides the regression values for the three significant findings reported above.

Table 5

Stepwise Regression Analyses Using HO, JAS, TANG, WOLS and SEX to Predict "Other-Change" Scores (OCABS, OCPOLE) and Post-State Anger Ratings (SANG)

<table>
<thead>
<tr>
<th>Dependent Variable - Absolute &quot;Other-Change&quot; Score (OCABS)</th>
<th>Step Variable</th>
<th>B</th>
<th>SE B</th>
<th>Beta</th>
<th>T</th>
<th>p=</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1. TANG</td>
<td>2.15</td>
<td>.41</td>
<td>.56</td>
<td>5.22</td>
<td>.00</td>
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<tr>
<td></td>
<td>2. TANG</td>
<td>1.94</td>
<td>.53</td>
<td>.51</td>
<td>3.68</td>
<td>.00</td>
</tr>
<tr>
<td></td>
<td>JAS</td>
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<td>-0.07</td>
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<tr>
<td></td>
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<tr>
<td></td>
<td>WOLS</td>
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<td>.55</td>
<td>-0.01</td>
<td>-0.03</td>
<td>.97</td>
</tr>
<tr>
<td></td>
<td>HO</td>
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<td>.25</td>
<td>.05</td>
<td>.33</td>
<td>.74</td>
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Table 5 (cont.)

**Dependent Variable - Pole "Other-Change" Score (OCPOLE)**

<table>
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<th>Beta</th>
<th>T</th>
<th>p</th>
</tr>
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<tbody>
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<td>1. SEX</td>
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<td>.02</td>
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<td>2. SEX</td>
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<td>2.27</td>
<td>.25</td>
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<tr>
<td>JAS</td>
<td>.07</td>
<td>.20</td>
<td>.05</td>
<td>.35</td>
<td>.73</td>
</tr>
<tr>
<td>TANG</td>
<td>.46</td>
<td>.33</td>
<td>.22</td>
<td>1.38</td>
<td>.17</td>
</tr>
<tr>
<td>WOLS</td>
<td>.08</td>
<td>.34</td>
<td>.03</td>
<td>.24</td>
<td>.81</td>
</tr>
<tr>
<td>HO</td>
<td>-.01</td>
<td>.16</td>
<td>-.00</td>
<td>-.02</td>
<td>.98</td>
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**Dependent Variable - Post State Anger Rating (SANG)**

<table>
<thead>
<tr>
<th>Step Variable</th>
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<th>p</th>
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<tbody>
<tr>
<td>1. HO</td>
<td>.26</td>
<td>.09</td>
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<td>.00</td>
</tr>
<tr>
<td>2. HO</td>
<td>.17</td>
<td>.12</td>
<td>.24</td>
<td>1.45</td>
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<tr>
<td>JAS</td>
<td>.18</td>
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<td>.17</td>
<td>1.28</td>
<td>.20</td>
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<tr>
<td>WOLS</td>
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<td>.25</td>
<td>.01</td>
<td>.06</td>
<td>.95</td>
</tr>
<tr>
<td>SEX</td>
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<td>1.65</td>
<td>.09</td>
<td>.71</td>
<td>.48</td>
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<tr>
<td>TANG</td>
<td>.18</td>
<td>.24</td>
<td>.11</td>
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<td>.47</td>
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</tbody>
</table>

**NOTE.** HO= Cook and Medley Hostility Scale; JAS=Jenkins Activity Survey-Short Student Form; WOLS=Way of Life Scale; TANG=Spielberger Trait Anger Subscale.

**Hypothesis 2c.** This hypothesis proposed that high scores on the enduring emotional disposition measures and female sex would predict higher "self-change" scores (SCABS, SCPOLE), higher state depression ratings (DEPR), and higher depression mood thermometer ratings (MTD). As in Table 3, SEX and SRDS were significantly and positively related to SCABS with SRDS also showing a significant and positive relationship to DEPR. JAS was significantly and negatively
related to SCABS. No significant relationships were found between the enduring emotional disposition measures and the MTD. Stepwise regression analyses were performed using the HO, SRDS, WOLS, JAS and SEX as independent variables and the SCABS, SCPOLE, DEPR, and MTD scores as dependent variables. JAS scores predicted a significant amount of the variance in absolute "self-change" scores (SCABS) \([F (1,58) = 20.63, p < .001]\). SEX also accounted for a significant amount of the variance in SCABS scores with males more likely to have higher absolute "self-change" scores than females \([F (2,57) = 13.44, p < .001]\). None of the independent variables (HO, SRDS, WOLS, JAS, SEX) accounted for a significant amount of the variance in the SCPOLE score or the depression mood thermometer ratings (MTD). The measure of trait depression (SRDS) accounted for a significant amount of the variance in the state depression rating (DEPR) \([F (1,58) = 19.26, p < .001]\). Table 6 provides the regression values for the two dependent variables (SCABS, DEPR) with significant findings.

**Hypothesis 3**

This hypothesis predicted that in the "challenge" condition, a positive correlation would be found between "other-change" scores (OCABS, OCPOLE) and the state anger ratings (SANG) and anger mood thermometer ratings (MTA). A positive correlation was also expected between the "self-change" scores (SCABS, SCPOLE) and the state depression
Table 6

Stepwise Regression Analyses Using HO, JAS, WOLS, SRDS, and SEX to Predict Absolute "Self-Change" Scores (SCABS) and State Depression Ratings (DEPR)

Dependent Variable - Absolute "Self-Change" Scores (SCABS)

<table>
<thead>
<tr>
<th>Step Variable</th>
<th>B</th>
<th>SE B</th>
<th>Beta</th>
<th>T</th>
<th>p=</th>
</tr>
</thead>
<tbody>
<tr>
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<td>2. JAS</td>
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<td>.00</td>
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<tr>
<td>SRDS</td>
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<tr>
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<td>HO</td>
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<td>.03</td>
<td>-.06</td>
<td>-0.40</td>
<td>.69</td>
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</table>

Dependent Variable - Post-Condition State Depression Rating (DEPR)

<table>
<thead>
<tr>
<th>Step Variable</th>
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<th>SE B</th>
<th>Beta</th>
<th>T</th>
<th>p=</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. SRDS</td>
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<td>.50</td>
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<td>.00</td>
</tr>
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<td>2. SRDS</td>
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<td>.03</td>
<td>.54</td>
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<td>.00</td>
</tr>
<tr>
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<tr>
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<td>-0.65</td>
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<tr>
<td>JAS</td>
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<tr>
<td>HO</td>
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<td>.02</td>
<td>-.07</td>
<td>-0.43</td>
<td>.67</td>
</tr>
</tbody>
</table>

NOTE: SRDS=Self-Rating Depression Scale; WOLS=Way of Life Scale; JAS=Jenkins Activity Survey-Short Student Form; HO=Cook and Medley Hostility Scale.

ratings (DEPR) and depression mood thermometer ratings (MTD). No significant correlations were found among these variables, therefore this hypothesis was not supported. In addition, the situational affective state ratings did not correlate significantly with the post-manipulation "like-
self" ratings (LSPOST). Table 7 provides the Pearson r coefficients for the above mentioned variables.

Table 7

Correlation Coefficients For the "Other-Change" and "Self-Change" Scores and Post-Condition State Mood Ratings

<table>
<thead>
<tr>
<th>Variable</th>
<th>SANG</th>
<th>MTA</th>
<th>DEPR</th>
<th>MTD</th>
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<tbody>
<tr>
<td>OCABS</td>
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<td>--</td>
<td>--</td>
</tr>
<tr>
<td>OCPOLE</td>
<td>-.13</td>
<td>-.09</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>SCABS</td>
<td>--</td>
<td>--</td>
<td>.10</td>
<td>.17</td>
</tr>
<tr>
<td>SCPOLE</td>
<td>--</td>
<td>--</td>
<td>.02</td>
<td>.06</td>
</tr>
<tr>
<td>LSPOST</td>
<td>-.08</td>
<td>-.21</td>
<td>-.04</td>
<td>-.13</td>
</tr>
</tbody>
</table>

NOTE. OCABS=absolute other-change; OCPOLE=other-change pole; SCABS=absolute self-change; SCPOLE=self-change pole; LSPOST=post like-self rating; SANG=state anger; MTA=anger mood thermometer; DEPR=state depression rating; MTD=depression mood thermometer.
CHAPTER IV
DISCUSSION

The current study examined the effects of experiencing an interpersonally challenging interaction on individuals' constructs about themselves in relationship to others. In addition, certain persistent emotional dispositions were examined as possible "vulnerability" markers to self/other construct change, the nature of the change, and the post-interaction affective state.

The results of this study support the notion that when individuals are interpersonally "challenged," they are more likely to alienate themselves from others by construing an increased differentiation between "self/others." This is consistent with the findings of Adams-Webber (1975) and others (Rasile, 1989; Weissenberger, 1991) which showed that predictable shifts in a direction of increased alienation occur when individuals are experiencing a stressful and/or negative experience. It appears likely that these types of shifts would have an impact on our relationship to the world as, according to the golden section hypothesis, a shift in the optimum balance of our cognitive/affective structures would affect our ability to cope with stress. The more differentiated or alienated we view ourselves from others, the less able we may be to make accurate interpersonal
predictions because of an incongruence in how we view ourselves versus the world. The more we view ourselves as different from the world, the more likely our self-constructs will be challenged and we therefore have to cope with self-construct revision and/or replacement.

When our self-constructs are challenged or undergoing change, Kelly (1955) suggested that we may experience the transitional constructs of "threat" and "hostility." The present study provides some support for the model presented in the introduction section that individuals with "Type A" emotional dispositions such as anger, hostility and depression would react with similar emotions and feel more alienated after an interpersonal challenge. It seems that certain individuals may be more "vulnerable" to feeling that their core self and role structures are "threatened" when interpersonally challenged, with a tendency to react by trying to alter the environment to fit their self-constructs (Kellian "hostility"). The results of this method of adaptation to change may be increased differentiation/ alienation from the environment. More refined measures of Type A core constructs would further delineate the viability of the presented model.

Smith and Rhodewalt’s (1986) transactional model of the Type A behavior pattern suggested that a cognitive/behavioral style of anticipating provocation and mistreatment from others, interpreting the action from
others as hostile, behaving antagonistically, and mistrusting pervasively, likely elicits and exacerbates interpersonal conflict. The fact that individuals reporting higher levels of depression showed increased differentiation from others after interpersonal challenge also lends some support to how hostile versus depressed people construe self-construct threat may not be mutually exclusive. Price (1982) and Glass (1977) both discussed how depression may be a psychological concomitant of the person exhibiting the TABP who is consistently invalidated. The results of this study lend support to the transactional model as well as Kelly’s notion that suggests the importance of the "person" as an active agent with a reciprocal role in their interactions with the world.

It was suggested that Type A behavior pattern characteristics serve as a "vulnerability" marker to change in self/other constructs and that those acknowledging this cognitive/behavioral style would exhibit certain types of changes as well as an increased vulnerability to situational affective states. Gender was also suspected as a factor in the nature of the construct change and type of affective state experienced. Results of this study generally support the concept that hostile, angry individuals are more likely to change their constructs about others, whereas more depressed individuals are more likely to change their self-constructs. In addition, individuals acknowledging more
Type B behavior pattern characteristics were more likely to change their self-constructs. This finding is consistent with the idea that those with Type B characteristics may be more willing to "accommodate" their self-constructs and less likely to try to engage in Kellian hostility (altering "others" to fit their world view).

In the current study, certain intragroup differences were noted in the challenge condition. Those subjects reporting higher trait anger and hostility also acknowledged a higher level of situational anger. Individuals reporting a higher level of dispositional depression also responded with a higher level of situational depression. It seems that individuals with a predisposing affective style may react to construct challenge with a similar emotional state.

These results are consistent with Beck's findings (1988) that hostile individuals may react to social situations with threat and fear, whereas constricting individuals react in a less assertive way with feelings of guilt and anxiety. These two styles of coping are quite similar to the "fight or flee" responses studied extensively in the stress and coping research.

The present study provides some support for gender differences in self/other construct change. However, males were more likely to change their constructs about others as well as themselves, whereas females exhibited less amount of change in either self or other constructs. It is possible
that the females were not as affected by the role-play challenge overall. Or, perhaps the female confederate was not as effective at "challenging" particular constructs as the male confederate. Another explanation may be that gender differences were overridden by the persistent emotional disposition of the subject, which did appear to have a relationship to the types of construct change that occurred.

The global Type A behavior pattern as measured by the Jenkins Activity Survey-Short Student Form did not have a significant relationship to construct change or situational affective ratings, except that those scoring in the Type B direction were more likely to change self-constructs. This is consistent with the idea that the JAS measures constructs such as time pressure and competitiveness versus hostility, the more "toxic" element of the TABP. It appeared from the data that the measures of hostility and trait anger were more closely assessing a construct analogous to Kellian hostility than the global Type A measure.

In an attempt to study the relationship between interpersonal challenge, Kellian hostility, and the related TABP construct of exaggerated social control (Wright, 1988), a measure of "nonmutuality" was included in the present study, the Way of Life Scale (Wright et al., 1990; in press). This scale did not correlate significantly with any of the post-manipulation construct change scores or
situational affective ratings. The overall mean rating was fairly low so subjects did not endorse many items suggesting a tendency to "socially control" others. The questionnaire may not have generalized to a college student population as it was initially designed for use with older patients with coronary artery disease. Some of the questions, such as "When it is time to discipline the children, I make the decision." appear more appropriate for older individuals. Including a locus of control questionnaire or rewriting the questions on the WOLS with a college student population in mind might have been more appropriate to examine the construct of "control" in this study.

It was hypothesized that certain situational affective states would accompany either "self" or "other" construct change. No significant relationships were found among the situational affective state measures and either the overall post "like-self" rating or the types of construct change. The subjects' predisposing emotional patterns had a greater relationship to their overall ratings of their "self" and "other" constructs and so may have overridden their situational affective state. It would have been interesting to note any behavioral correlates during the role-play interaction which may have further differentiated the cognitive/affective changes that were occurring. For example, did those who scored higher on hostility and trait anger measures and/or changed their "other" constructs
persist longer or with more intensity to try convince the "professor" and preserve their "self" constructs? Also, did those who changed their "self" constructs and/or scored higher on trait depression have a tendency to acquiesce to the arguments of the "professor"? Study of the subjects' behavior during the interaction would have provided additional information concerning the impact of the challenge interaction and construct change on the actual relationship with the other person.

At a theoretical level, this study can be seen as further progress toward understanding the relationship between "hostility" and interpersonal processes. The findings support Smith's (1992) notion that consideration of the interpersonal nature of hostility would benefit the research on the relationship between hostility and health. This study tried to examine the ways in which people construe their social worlds and influence and respond to the actions of others. This inquiry contributes to the ongoing study of transactional models of Type A behavior pattern and the hostility/illness link. Using Kelly's (1955) personal construct theory approach also provides a metastructure for recognizing the role of the person as an active agent with a reciprocal relationship to the environment.

The use of the REPgrid as a tool for studying intra- and interpersonal constructs is also a unique contribution of
this study to the TABP literature. It would be useful to develop additional operational measures of Kelly’s conceptual constructs of "threat" and "hostility" to use with the standard measures used in TABP studies to assess the similarity of these constructs. Inclusion of physiological measures would also provide the opportunity to further explore the biopsychosocial mechanisms which are inherent in any transactional model of hostility and health.

This study supports the idea that certain individuals may be more "vulnerable" to alienation from others when challenged based on predisposing emotional patterns such as hostility and anger. Abundant research supports how this "vulnerability" may impact not only social relationships but overall health. Much of Dr. Dean Ornish’s "Opening Your Heart" program (Ornish, 1990) for cardiac rehabilitation patients focuses on "connecting" with self and others. He contends that anything that promotes a sense of isolation leads to chronic stress and, often, to illnesses like heart disease. Conversely, anything that leads to real intimacy and feelings of connection can be healing.

(1990, p. 87)

He has developed visualization exercises such as role-playing a conversation with your heart in order to achieve greater "horizontal intimacy" with self and others. He also encourages cultivating an adequate social support system
through communication, altruism, and self-disclosure. It seems that this program attempts to help patients achieve an optimum balance between "self" and "others" as they negotiate construct challenge.

Clinically, further understanding of how our cognitive/behavioral style impacts response to interpersonal and construct challenge would prove beneficial in assisting individuals to cope with the ever changing world we live in. If individuals are prone to coping with self-construct invalidation by Kellian "hostility," intervention methods focused on the physical and psychosocial consequences of trying to "control the uncontrollable" environment would seem beneficial in any therapeutic prevention and/or rehabilitation program. Helping individuals understand their constructs about change, how it impacts the accuracy of their interpersonal predictions and assisting them with altering their cognitive/behavioral strategies for coping with change may have an overall positive effect on their relationships as well as their health.

In our rapidly changing society, we are barraged with social and cultural change on a daily basis. We have also become more alienated as individuals and a society at large. Perhaps our current sociocultural models of change are based on an "out of balance" mode of either consistently trying to "alter" the environment or only changing our self-constructs. As a result, we may view ourselves as
increasingly different from others, and thus feel more alienated. Either extreme, changing constructs about "self" or "others" seems rigid and mechanistic and not in accordance with the idea of "reciprocal determinism," or knowing when and how to switch from trying to bring the environment in line with one's wishes to bringing oneself in line with the environment (Powell, 1992). Learning how to revise our self/other constructs without changing the overall balance of how we view ourselves in relationship to the world may provide us with the optimum level of information needed to predict and anticipate events. A healthier model of change may lead to less emotional distress, an increased sense of control and decreased alienation from others.

The current study provides a starting point for examining hostility as an interpersonal process in coping with construct change. Although several interesting findings are offered, further clarification concerning how individuals cope with change without disrupting the optimum balance in their self/other constructs is needed. What effect having the ability to change our constructs about "self" and "others" without altering the overall balance of how we view ourselves in relationship to the world has on cognitive, affective, and behavioral structures as well as physiological symptomatology holds many questions for future research.
APPENDIX A

INFORMED CONSENT FORM
RESEARCH CONSENT FORM

I, ______________________, agree to participate in a study involving perceptions of self and others, personality factors, and emotions. This study is part of research being conducted by Tina Bollinger, a Ph.D. student in Health Psychology/Behavioral Medicine at the University of North Texas.

I understand that I will be expected to participate in a number of experimental tasks including completion of forms, checklists, and questionnaires related to my attitudes, perceptions and feelings about people and situations. I will also be expected to participate in a role-play situation concerning interpersonal perceptions.

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 minimal personal risk or discomfort directly involved with this research and that I am free to withdraw by consent and discontinue participation in this study at any time.

I agree to provide my mailing address so that I may receive information concerning the conditions and results of this study.

Date ____________________ Participant ____________________
APPENDIX B

BACKGROUND AND HISTORY INFORMATION
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

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

ROLE-PLAY INSTRUCTION SHEETS
(ROLE-PLAY INSTRUCTIONS FOR CONFEDERATE IN SUPPORTIVE CONDITION)

In this role-play situation, you will be playing the role of an academic advisor. Your partner will be playing the role of a student who has come to you for advice on selecting a college major. This student is trying to decide whether or not to major in psychology.

Your goal in this role-play situation is to be very supportive of the student. Whatever his/her views are, you are to be agreeable and frequently affirm and exhort the students ideas. It is your intention to make this meeting between student and advisor as harmonious and pleasant as possible. Use nonverbal cues of support such as smiling, nodding your head in agreement, and maintaining an open body stance (arms open, face the student and maintain eye contact).

Below are some views/ideas concerning the pro's and con's of majoring in psychology. You are to use these ideas to assist you in taking the same side of the issue as the student. REMEMBER, it is your goal to be as supportive, friendly, and agreeable as possible, no matter what issues the student may raise.

THE ROLE-PLAY WILL PROCEED FOR FIVE (5) MINUTES.

PRO'S of majoring in psychology

1. opportunity to help others (adults, children) in need.
2. provides the chance to learn more about yourself.
3. can participate in research that may help with social and psychological problems.
4. chance to be a member of a respected profession.
5. opportunity to specialize in many different areas of expertise with a diversified job market.
6. there is a diversified job market in research and/or clinical work.

CON'S of majoring in psychology

1. can be personally stressful listening and helping others in need.
2. depending on the position, can be long hours and low pay.
3. it is time-consuming and expensive to get a Ph.D., which is required for most professional positions.
4. it is a more difficult science to study as is not as clear cut as the "hard sciences."
5. profession does not get as much respect as medical profession.
6. dealing with the health care system can be stressful and frustrating.
The purpose of this role-play situation is to see how our perceptions of one another vary, depending on the experiences we have with other people. In this role-play situation, you are playing the part of a student who is meeting with an academic advisor. Today, you and your advisor are discussing the selection of your college major. You are trying to decide whether or not to select a major in psychology. Feel free to discuss any thoughts and views you have on the subject of majoring in psychology. The more involved you become in your character, the better you will be able to play your role.

THIS ROLE-PLAY SITUATION WILL PROCEED FOR 5 (FIVE) MINUTES.
(ROLE-PLAY INSTRUCTIONS FOR CONFEDERATE IN CHALLENGE SITUATION)

In this role-play situation you will be playing the part of a professor who has given a student a grade of "F" on the final test in an upper level psychology class. With a grade of "F" on the final test, the student must retake the class and it will delay his/her graduation date. The student does not feel the grade was a fair representation of his/her work and has arranged a meeting with you to discuss the situation.

Your goal in this role-play situation is to personally challenge the student. You are to be confrontive and disagreeable. Your goal is to make your meeting with this student an unpleasant experience. Use nonverbal cues of confrontation and challenge including frowning, nodding your head in disagreement and maintaining a closed body stance (arms folded, face away from the student when they are talking, do not maintain eye contact when they are talking, stare at the student and move toward them when you are talking).

You are to refuse to change his grade and blame him for his problems in your class. You are to use the statements below to assist you in providing challenging and confrontive information to the student.

THIS ROLE-PLAY WILL PROCEED FOR 5 (FIVE) MINUTES.

Challenging, confrontive statements

1. I'm not sure how anyone could believe that your performance on this test was actually your best effort.
2. This is not that complicated....you just did not make the grade.
3. Even you must realize....the effort that it takes to study for my tests in order to pass my class.
4. Everyone knows....that if you study, you will be successful in my class.
5. I refuse to agree....that I graded you unfairly.
6. You will just have to try harder when you retake the class.
7. I'm not sure what you expect to accomplish with this meeting.
8. You are really wasting your time and mine by trying to change my mind concerning your grade.
9. I do not see how my teaching style had any adverse effect on your grade.
10. Your study skills must need polishing or you would have performed better.
(ROLE-PLAY INSTRUCTIONS FOR SUBJECT IN THE
CHALLENGE CONDITION)

The purpose of this role-play situation is to examine how our perceptions of one another vary, depending on our experiences with other people. In this role-play situation, you will be playing the part of a student who has received a grade of "F" in an upper level psychology course. If you must retake the class, it will delay your graduation date. Therefore, you are very determined to try and have the grade changed. You do not feel the grade is an accurate representation of your work, so you have arranged a meeting with the professor to discuss the situation. Feel free to present any views/ideas you have which may "help your case." The more involved you become in your character, the better you will be able to play your role.

THE ROLE-PLAY SITUATION WILL CONTINUE FOR 5 (FIVE) MINUTES.
APPENDIX D

INVOLVEMENT RATINGS
MAN-RATING -1

PLEASE CIRCLE THE RATING WHICH INDICATES THE EXTEND TO WHICH YOU FEEL YOU WERE ABLE TO BECOME INVOLVED IN THE ROLE-PLAY SITUATION.

1 = CLEARLY I WAS ABLE TO GET INVOLVED IN THE ROLE-PLAY SITUATION.

2 = I WAS ABLE TO GET INVOLVED IN THE ROLE-PLAY SITUATION TO SOME EXTENT.

3 = I WAS NOT AT ALL ABLE TO GET INVOLVED IN THE ROLE-PLAY SITUATION.
MAN-RATING-2

PLEASE CIRCLE THE RATING WHICH INDICATES THE EXTENT TO WHICH YOU FEEL YOUR PARTNER WAS INVOLVED IN THE ROLE-PLAY SITUATION.

1 = MY PARTNER WAS CLEARLY INVOLVED IN THE ROLE-PLAY SITUATION.

2 = MY PARTNER WAS SOMEWHAT INVOLVED IN THE ROLE-PLAY SITUATION.

3 = MY PARTNER WAS NOT AT ALL INVOLVED IN THE ROLE-PLAY SITUATION.
APPENDIX E

DISCLOSURE LETTER
Dear experiment participant,

This letter is in reference to the experiment you participated in titled "Self-Other Perceptions Under Challenge: A Personal Construct Theory Approach To Hostility And The Type A Behavior Pattern."

In the Fall, 1993 or the Spring, 1994, you completed a packet of questionnaires and then participated in a role-play interaction with someone you were told was another "student" in the study. You either participated in a role-play where you were deciding whether to major in psychology or you were confronting a professor about an "F" on a psychology test. You then completed several more questionnaires after the role-play interaction.

The "student" you participated with in the role-play interaction was actually a trained "confederate"; a person who was previously trained by the experimenter to engage you in either a "supportive" or "personally challenging" role-play interaction. You were not informed of the confederate's status at the time of the interaction because it might have affected how you performed in the interaction. You were not informed after the interaction so that future participants would not be aware of the nature of the study. None of the participants in the study were informed of the confederate's status until receiving this letter as the study is now completed.

The "challenging" role-play was designed as personally stressful in order to examine whether a stressful interaction would affect our view of ourselves and others. The "supportive" role-play served as a comparison group.

I would like to take this opportunity to thank you for participating in the study and if you have any further questions or concerns, please do not hesitate to contact me through the Psychology Department, 817-565-2671.

Sincerely,

Tina K. Bollinger, M.A.
APPENDIX F

COOK AND MEDLEY HOSTILITY SCALE
READ EACH STATEMENT AND DECIDE WHETHER IT IS TRUE AS APPLIED TO YOU OR FALSE AS APPLIED TO YOU. IF THE STATEMENT IS TRUE OR MOSTLY TRUE, CIRCLE THE T. IF THE STATEMENT IS FALSE OR MOSTLY FALSE, CIRCLE THE F. DO NOT LEAVE ANY BLANK IF YOU CAN AVOID IT.

1. When I take a new job, I like to be tipped off on who should be gotten next to.  
   T  F

2. When someone does me a wrong I feel I should pay him back if I can, just for the principle of the thing.  
   T  F

3. I prefer to pass by school friends, or people I know but have not seen for a long time, unless they speak to me first.  
   T  F

4. I have often had to take orders from someone who did not know as much as I did.  
   T  F

5. I think a great many people exaggerate their misfortunes in order to gain sympathy and help of others.  
   T  F

6. It takes a lot of argument to convince most people of the truth.  
   T  F

7. I think most people would like to get ahead.  
   T  F

8. Someone has it in for me.  
   T  F

9. Most people are honest chiefly through fear of being caught.  
   T  F

10. Most people will use somewhat unfair means to gain profit or an advantage rather than to lose it.  
    T  F

11. I commonly wonder what hidden reason another person may have for doing something nice for me.  
    T  F

12. It makes me impatient to have people ask me advice or otherwise interrupt me when I am working on something important.  
    T  F

13. I feel that I have often been punished without cause.  
    T  F

14. I am against giving money to beggars.  
    T  F

15. Some of my family have habits that bother and annoy me very much.  
    T  F
16. My relatives are nearly all in sympathy with me. T F

17. My way of doing things is apt to be misunderstood by others. T F

18. I don't blame anyone for trying to grab everything he can get in this world. T F

19. No one cares much what happens to you. T F

20. I can be friendly with people who do things which I consider wrong. T F

21. It is safer to trust nobody. T F

22. I do not blame a person for taking advantage of someone who lays himself open to it. T F

23. I have often felt that strangers were looking at me critically. T F

24. Most people make friends because friends are likely to be useful to them. T F

25. I am sure I am being talked about. T F

26. I am likely not to speak to people until they speak to me. T F

27. Most people inwardly dislike putting themselves out to help other people. T F

28. I tend to be on my guard with people who are somewhat more friendly than I had expected. T F

29. I have sometimes stayed away from another person because I feared doing or saying something that I might regret afterwards. T F

30. People often disappoint me. T F

31. I like to keep people guessing what I'm going to do next. T F

32. I frequently ask people for advice. T F

33. I am not easily angered. T F

34. I have often met people who were supposed to be experts who were no better than I. T F
35. I would certainly enjoy beating a crook at his own game.   T  F
36. It makes me feel like a failure when I hear of the success of someone I know well.   T  F
37. People generally demand more respect for their own rights than they are willing to allow for others.   T  F
38. There are certain people whom I dislike so much that I am inwardly pleased when they are catching it for something they have done.   T  F
39. I am often inclined to go out of my way to win a point with someone who has opposed me.   T  F
40. I am quite often not in on the gossip and talk of the group I belong to.   T  F
41. The man who had the most to do with me when I was a child (such as my father, stepfather, etc.) was very strict with me.   T  F
42. I have often found people jealous of my good ideas, just because they had not thought of them first.   T  F
43. When a man is with a woman he is usually thinking about things related to her sex.   T  F
44. I do not try to cover up my poor opinion or pity of a person so that he won't know how I feel.   T  F
45. I have frequently worked under people who seem to have things arranged so that they get credit for good work but are able to pass off mistakes onto those under them.   T  F
46. I strongly defend my own opinions as a rule.   T  F
47. People can pretty easily change me even though I thought that my mind was already made up on a subject.   T  F
48. Sometimes I am sure that other people can tell what I am thinking.   T  F
49. A large number of people are guilty of bad sexual conduct.   T  F
50. I have at times had to be rough with people who were rude or annoying.   T  F
APPENDIX G

JENKINS ACTIVITY SURVEY - SHORT STUDENT FORM
FOR EACH QUESTION, CHOOSE THE ANSWER THAT IS TRUE FOR YOU AND CIRCLE THE LETTER IN FRONT OF THAT ANSWER. EACH PERSON IS DIFFERENT, SO THERE ARE NO "RIGHT" OR "WRONG" ANSWERS. MARK ONLY ONE ANSWER FOR EACH QUESTION.

1. Is your everyday life filled mostly by
   a. problems needing a solution?
   b. challenges needing to be met?
   c. a rather predictable routine of events?
   d. not enough things to keep me interested or busy?

2. When you are under pressure or stress, what do you usually do?
   a. Do something about it immediately.
   b. Plan carefully before taking any action.

3. Ordinarily, how rapidly do you eat?
   a. I’m usually the first one finished.
   b. I eat a little faster than average.
   c. I eat at about the same speed as most people.
   d. I eat more slowly than most people.

4. Has your spouse or friend ever told you that you eat too fast?
   a. Yes, often.
   b. Yes, once or twice.
   c. No, never.

5. When you listen to someone talking, and this person takes too long to come to the point, how often do you feel like hurrying the person along?
   a. Frequently.
   b. Occasionally.
   c. Almost never.

6. How often do you actually "put words in the person’s mouth" in order to speed things up?
   a. Frequently.
   b. Occasionally.
   c. Almost never.

7. If you tell a spouse or a friend that you will meet somewhere at a definite time, how often do you arrive late?
   a. Once in a while.
   b. Rarely.
   c. I am never late.
8. Do most people consider you to be
   a. definitely hard-driving and competitive?
   b. probably hard-driving and competitive?
   c. probably more relaxed and easygoing?
   d. definitely more relaxed and easygoing?

9. Nowadays, do you consider yourself to be
   a. definitely hard-driving and competitive?
   b. probably hard-driving and competitive?
   c. probably more relaxed and easygoing?
   d. definitely more relaxed and easygoing?

10. Would your spouse (or closest friend) rate you as
    a. definitely hard-driving and competitive?
    b. probably hard-driving and competitive?
    c. probably more relaxed and easygoing?
    d. definitely more relaxed and easygoing?

11. Would your spouse (or closest friend) rate your general
    level of activity as
     a. too slow - should be more active?
     b. about average - busy much of the time?
     c. too active - should slow down?

12. Would people you know well agree that you have less
    energy than most people?
    a. Definitely yes.
    b. Probably yes.
    c. Probably no.
    d. Definitely no.

13. How was your temper when you were younger?
    a. Fiery and hard to control.
    b. Strong but controllable.
    c. No problem.
    d. I almost never got angry.

14. How often are there deadlines in your courses at
    school?
    a. Daily or more often.
    b. Weekly.
    c. Monthly or less often.
    d. Never.

15. Do you every set deadlines or quotas for yourself at
    school or at home?
    a. No.
    b. Yes, but only occasionally.
    c. Yes, once a week or more.
16. At school, do you ever keep two projects moving forward at the same time by shifting back and forth rapidly from one to the other?
   a. No, never.
   b. Yes, but only in emergencies.
   c. Yes, regularly.

17. Do you maintain your regular work schedule over the holidays?
   a. Yes.
   b. No.

18. How often do you bring work home with you at night, or study materials related to your job or classes?
   a. Rarely or never.
   b. Once a week or less.
   c. More than once a week.

19. When you are in a group, how often do the other people look to you for leadership?
   a. Rarely.
   b. About as often as they look to others.
   c. More often than they look to others.

20. In sense of responsibility, I am
   a. much more responsible.
   b. a little more responsible.
   c. a little less responsible.
   d. much less responsible.

21. I approach life in general
   a. much more seriously.
   b. a little more seriously.
   c. a little less seriously.
   d. much less seriously.
APPENDIX H

WAY OF LIFE SCALE
WAY OF LIFE SCALE

The following questionnaire should be filled out according to how you feel at the present. For each item, circle the a or b choice which most accurately describes you. Do not spend much time on any one item.

1. a. I am easily awakened by noise.
   b. I shudder when I hear talk of a World War III.

2. a. When it is time to make a major decision, like purchasing a house or a car, I usually make the decision.
   b. Some problems are too big for one to solve by oneself.

3. a. When it is time to make a major decision about moving, I usually make the decision.
   b. No matter how hard you try, someone will always be dissatisfied.

4. a. My daily life is full of things that are interesting.
   b. I sometimes forget to brush my teeth.

5. a. I enjoy detective or mystery stories.
   b. Living is a wonderful experience.

6. a. I hate to cook.
   b. I work under a great deal of tension.

7. a. When it is time to discipline the children, I make the decision.
   b. I sometimes perspire.

8. a. I believe most people are liars.
   b. No one seems to understand me.

9. a. It is okay for men to have long hair.
   b. When it is time to decide about social events with friends or family, I usually make that decision.

10. a. I probably smell occasionally.
    b. I like to be bossy.

11. a. I felt unwanted as a child.
    b. At times I feel like swearing.

12. a. It is best to live for the present and not to worry about tomorrow.
    b. I like to get in the last word.
13. a. I find it hard to keep my mind on a task.
   b. I often doubt that my dreams will come true.

14. a. I am not very sentimental.
   b. At times I feel like smashing things.

15. a. I would make a terrible salesman.
   b. I like to know the details about other people's
      phone conversations.

16. a. I cannot take people poking fun at me.
   b. I do not always tell the truth.

17. a. I am annoyed by people with body odor.
   b. I like to have rules and structure for handling
      most or all situations.

18. a. I like to monitor people to make sure things are
      the way they should be.
   b. When I am in the midst of doing a job and someone
      (not my boss) interrupts me, I feel okay because
      I work better after an occasional break.

19. a. I like to make sure everything goes according to
      plan.
   b. Even though some tasks are unpleasant, they just
      have to be done.

20. a. I often have a problem saying no.
   b. I am a good mixer.

21. a. I strongly support the military draft.
   b. I like to lead conversations or group discussions.

22. a. My feelings are easily hurt.
   b. I am liked by most people.

23. a. I get angry sometimes.
   b. I would resort to stealing if I were hungry.

24. a. I would make a terrible artist.
   b. I may be inclined to interrupt people if they are
      not responding in the way they should be.

25. a. I think most people would lie to get ahead.
   b. Some people may think I am eccentric.

26. a. I would rather keep to myself than "open up."
   b. I am lacking in self-confidence.
27. a. I am an important person.
   b. The government refuses to tell the truth about flying saucers.

28. a. I rarely put words in a person's mouth in order to speed things up.
   b. I have a tendency to manipulate, maneuver, or control other people.

29. a. I am a good leader but not particularly a good follower.
   b. In conversation, I am a much better listener than a talker.

30. a. I like to give directions about driving or other activities.
   b. I am not hesitant to burp in a public restaurant, due to the fact that it is a natural biological function.

31. a. I prefer to keep my problems to myself.
   b. I am happy most of the time.

32. a. I am a person, who, if I am going out for an evening, like to decide where to eat, what movie to attend, etc.
   b. I read often.

33. a. My hardest battles are with myself.
   b. Sometimes I do not feel very alive.

34. a. I seem to be about as capable and smart as most others around me.
   b. I could get along all by myself if I had to.

35. a. I tend to overstructure spontaneous time such as vacations, etc., and turn them into controlled events.
   b. I believe heredity plays the major role in determining a person's personality.

36. a. I often feel bad upon waking.
   b. I feel useless at times.

37. a. I gossip at times.
   b. I have ideas about controlling things with children and other people such as how much food they should have on their plates, etc.

38. a. I sometimes wish I could just disappear.
   b. I am seen by relatives as being a dominant member of our extended family.
39. a. I am the one who usually decides which television channel to watch.
b. I enjoy shopping.

40. a. I am the one who usually controls the thermostat.
b. I enjoy talking with people about their problems.

41. a. Criticism or scolding hurts me terribly.
b. I would enjoy songwriting.

42. a. A person's sex life is no one else's business.
b. I would rather win than lose in a game.

43. a. I do not tire quickly.
b. I enjoy a good dessert.
APPENDIX I

SELF-RATING DEPRESSION SCALE
FOR THE FOLLOWING STATEMENTS, PLEASE RATE THE EXTENT TO WHICH THE STATEMENT IS TRUE OF THE WAY YOU GENERALLY FEEL OR ACT. PLEASE USE THE FOLLOWING RATING SCALE TO ANSWER EACH QUESTION.

1 = I feel this way a little of the time.

2 = I feel this way some of the time.

3 = I feel this way a good part of the time.

4 = I feel this way most of the time.

<table>
<thead>
<tr>
<th>Rating</th>
<th>Statement</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>I feel down-hearted and blue.</td>
</tr>
<tr>
<td>2.</td>
<td>Morning is when I feel the best.</td>
</tr>
<tr>
<td>3.</td>
<td>I have crying spells or feel like it.</td>
</tr>
<tr>
<td>4.</td>
<td>I have trouble sleeping at night.</td>
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<tr>
<td>5.</td>
<td>I eat as much as I used to.</td>
</tr>
<tr>
<td>6.</td>
<td>I still enjoy sex.</td>
</tr>
<tr>
<td>7.</td>
<td>I notice that I am losing weight.</td>
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<tr>
<td>8.</td>
<td>I have trouble with constipation.</td>
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<tr>
<td>9.</td>
<td>My heart beats faster than usual.</td>
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<td>10.</td>
<td>I get tired for no reason.</td>
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<tr>
<td>11.</td>
<td>My mind is as clear as it used to be.</td>
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<tr>
<td>12.</td>
<td>I find it easy to do the things I used to.</td>
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<tr>
<td>13.</td>
<td>I am restless and can’t keep still.</td>
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<tr>
<td>15.</td>
<td>I am more irritable than usual.</td>
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<tr>
<td>16.</td>
<td>I find it easy to make decisions.</td>
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<tr>
<td>17.</td>
<td>I feel that I am useful and needed.</td>
</tr>
<tr>
<td>18.</td>
<td>My life is pretty full.</td>
</tr>
<tr>
<td>19.</td>
<td>I feel that others would be better off if I were dead.</td>
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<tr>
<td>20.</td>
<td>I still enjoy the things I used to.</td>
</tr>
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</table>
APPENDIX J

ROLE REPERTORY TEST

(REPgrid)
The REP Test Instruction Sheet

Find the slanted lines in the upper left-hand corner of the Response Sheet.

1. Write the first name of your mother or the person who has played the part of your mother where it says mother.
2. Write the first name of your father or the person who has played the part of your father where it says father.
3. Write the first name of your brother nearest your own age or the person who has played the part of such a brother.
4. Write the first name of your sister nearest your own age or the person who has played the part of such a sister.

Do your best to find people who fit each description. If you cannot remember a person’s first name, write the last name or put down something about the person which will remind you who it is. Do not repeat any names. Use each name only one time. If you know two people with the same first name, use a last initial as well.

5. Your wife, husband, or closest present girl-friend or boy-friend.
6. Your closest present friend of the same sex as yourself. Do not repeat names.
7. A person with whom you have worked or associated who, for some unexplainable reason, appeared to dislike you. Do not repeat names.
8. The person with whom you usually feel the most uncomfortable. Do not repeat names.
9. The person you have met whom you would most like to know better. Do not repeat names.
10. The happiest person you know personally. Do not repeat names.
11. The unhappiest person you know personally. Do not repeat names.
12. Yourself.

Look at the rating scale GENEROUS versus STINGY on the first row. Think about your mother (column $1$). Use the rating scale (-6-5-4-3-2-1 0 +1+2+3+4+5+6) to describe your mother. Enter your rating in the square below her name. Think about your father (column $2$). Enter your impression of him in the square below his name. Rate $3$ (your brother), $4$ (your sister), and so on until you have finished that row. Continue on to the rating scale PLEASANT versus UNPLEASANT on the second row. Think about your mother and enter a rating the box below her name on this row. Continue on by rating your father ($2$), brother ($3$), sister ($4$), and so on until this row is completed. Finish the remaining rows in a similar manner until all of the squares have numbers.
## Role Construct Repertory Grid

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<thead>
<tr>
<th>Name</th>
<th>ID No.</th>
<th>Age</th>
<th>Sex</th>
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### Marital Status

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<tr>
<th>Occupation</th>
<th>Education</th>
<th>1</th>
<th>2</th>
<th>3</th>
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<th>5</th>
<th>6</th>
<th>7</th>
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<td>Generous</td>
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<td>+1</td>
<td>2</td>
<td>+3</td>
<td>4</td>
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<td>+6</td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Pleasant</td>
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<td>0</td>
<td>+1</td>
<td>2</td>
<td>+3</td>
<td>4</td>
<td>+5</td>
<td>+6</td>
<td></td>
<td></td>
<td></td>
<td>Unpleasant</td>
<td></td>
</tr>
<tr>
<td>True</td>
<td>-6-5-4-3-2-1</td>
<td>0</td>
<td>+1</td>
<td>2</td>
<td>+3</td>
<td>4</td>
<td>+5</td>
<td>+6</td>
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<td>Fair</td>
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<td>Unfair</td>
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**REP-abb**

*Instructions for the Abbreviated Rep Test*

**First Step:**

On this version of the REP test, fill in the same names that you used before starting the top lefthand section of the test. You will be rating the same people (including yourself) as you did previously. (The experimenter can read you the names you used before).

**Second Step:**

Please note the 12 pairs of constructs which can be used to describe the various persons. These are the same constructs you used previously to rate the various persons across the top of the response sheet. On this test you need only to rate the person on one side of the construct or the other by rating them as a 1 if the construct on the left side is the one that best describes them, rating them a 2 if the construct on the right side best describes them, or a 0 if neither construct accurately describes them. For example if "generous" is on the left side and "stingy" is on the right side, you would give the person a rating of 1 if "generous" best describes them and a 2 if "stingy" best describes them. If they’re neither "generous" or "stingy", put a 0 in the appropriate box. After finishing row 1, proceed to row 2, etc.
APPENDIX K

STATE DEPRESSION RATING AND MOOD THERMOMETERS
PLEASE USE THE RATING SCALE BELOW TO INDICATE HOW DEPRESSED YOU FEEL AT THE PRESENT TIME. CIRCLE THE NUMBER WHICH BEST DESCRIBES HOW YOU FEEL RIGHT NOW.

1  =  I am not depressed at all right now.

2

3

4

5

6

7  =  I am very depressed right now.
PLEASE CIRCLE THE FACE ON THE THERMOMETER THAT IS MOST LIKE YOU FEEL RIGHT NOW.

**HAPPY**

**SAD**
PLEASE CIRCLE THE FACE ON THE THERMOMETER THAT IS MOST LIKE YOU FEEL RIGHT NOW.

HAPPY

MAD
REFERENCES


Ashworth, C., Blackburn, I., & McPherson, F. (1982). The performance of depressed and manic patients on some
repertory grid measures: A cross-sectional study.

British Journal of Medical Psychology, 55, 247-255.


Houston, B. K., & Kelly, K. (1989). Hostility in employed women: Relation to work and marital experiences, social


Suarez, E., & Williams, R. B. (1990). The relationships between dimensions or hostility and cardiovascular reactivity as a function of task characteristics. *Psychosomatic Medicine, 52*, 558-570.


