Attributional Style, Depression, and Their Relationship to Gender and Gender Role Orientation

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ATTRIBUTIONAL STYLE, DEPRESSION, AND THEIR RELATIONSHIP TO GENDER AND GENDER ROLE ORIENTATION

by

KAREN M. LATZA

A Dissertation Submitted to the Faculty of the Graduate School of Loyola University of Chicago in Partial Fulfillment of the Requirements for the Degree of Doctor of Philosophy
August 1988
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VITA

The author, Karen M. Latza, is the daughter of Michael Joseph Latza and the late Isabel (Rubi) Latza. She was born on July 5, 1960 in Freeport, New York.

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CHAPTER I

INTRODUCTION

Within the considerable body of research which, in recent years has examined the issue of sex differences in the incidence of psychopathology, it seems widely accepted that depression is more prevalent in women than in men. DSM III-R (APA, 1987) reports that both Dysthymic Disorder and Major Depressive Disorder are more common among women. Numerous epidemiological studies attest to this striking gender difference. Weissman and Klerman (1977), for example, found that twice as many women as men undergo depressive episodes, and one in ten women can expect to suffer a serious depression in her lifetime. They noted that this sex difference is observed in studies of treated cases, in community surveys, and in most Western countries.

A number of theories have been offered to account for gender differences in the etiology of depressive phenomena (reviewed by Hammen, 1982). Biological/genetic theories of the gender difference, such as the presence of an X-chromosome linked transmission of depression, have received mixed support, according to Hammen. Endocrinological perspectives have also been poorly supported. Weissman and Klerman (1977) also noted that although Premenstrual tension, the use of oral contraceptives, and the postpartum
period all seem to increase rates of depression for women, these effects are not of sufficient size to account for the large gender difference in prevalence.

Another interpretation is that the difference in "illness behavior" among men and women may contribute to observed sex differences in depression. Illness behavior includes symptom recognition and labeling, symptom expression, and "coping" via seeking help and social support. These processes, the theory contends, may be differentially experienced and reinforced in women and men. Thus, men's depressive experiences may take somewhat different forms, and lead to different interpretations and outcomes. Data from a small number of studies have supported this view (e.g. Padesky & Hammen, 1981). However, some evaluations of the epidemiological research (e.g. Amenson & Lewinsohn, 1981; Elpern & Karp, 1984) have failed to support a view of the differential rates of depression as a mere artifact of sex differences in the perception of emotional difficulty and willingness to seek treatment. The need for a more complex interpretation of the phenomena is implied.

Sociological theories were the first to call attention to social roles as possible determinants of depression. They argue that less rewarding roles available to women predispose them to various forms of psychological maladjustment, as expressions of their discontent and oppression. Gove (1972), elaborating on the finding that an increased
prevalence of psychopathology among women occurs particularly for married persons, suggested that the negative aspects of the housewife role are critical determinants of mental disturbance in women. Similarly, Hammen (1982) reviewed theories which focus on the relationship between social stressors and depression, which suggested that women’s lives may contain more of the type of stressors which should predispose them to affective disorder. Although these perspectives have found limited support through research, Hammen pointed out that conclusions regarding stressful experiences as precipitants of depression await further, more methodologically refined study.

Theories of intraindividual determinants of depression which have relevance to the gender issue include psychodynamic formulations of personality and psychopathology. Traditional psychoanalytic theories, specifically pertaining to "object loss", or vulnerability to loss, and the "aggression turned inward" hypothesis, were reviewed by Cox and Radloff (1984). These authors concluded that there is limited support for the psychoanalytic descriptions of both the depressed and female personalities, and that these formulations pose great difficulties for empirical testing. Kaplan (1986) criticized the psychoanalytic perspective on depression as postulating the "loss" impact as occurring in one interpersonal direction - from some external supply-giver (e.g. of "oral gratification") to the self. She
argued that a fuller understanding of depression in women can only come from an emphasis on the complex and reciprocal interaction between social context and individual psychological development.

Current research in gender and gender role correlates of depression seem to reflect Kaplan's (1986) urging. An emphasis is developing on the "blend", or interaction between personality formation and social role expectations. That is, sex role expectations need not be viewed only as potentially pathogenic stressors, but also as the context in which men and women may internalize differential characteristic personality styles and modes of coping which may have relevance in the epigenesis of depression. Chevron, Quinlan, and Blatt (1978) proposed, for example, that depressive experiences may be a systematic extension, and distortion of "normal" internalized stable patterns of behaviors and attitudes associated with the traditional female role. The tradition of androgyny research begun by Bem (1974) and associates further suggested that there are potential health enhancing benefits of possessing traits which are characteristic of both sexes, and not just one's own. Kingery (1985) called attention to the potential affective relevance of the "fit", or congruence, between one's deeply held beliefs and attitudes, and the perception of available or desirable opportunities for action in one's life sphere. Kaplan (1986) articulated an eloquent view of
an "ambivalent cultural/social context" which simultaneously cultivates, then denigrates and fails to enhance the unique "self-structure" of women, thus leaving them vulnerable to depression.

In any case, Hammen (1982) had cogently and accurately charged that methodological limitations of the existing research make it extremely difficult to ascertain the meaning or clinical implications of the gender difference in depression. However, it seems apparent that an exploration of social role correlates, rather than mere biological gender is a meaningful and promising avenue of research. The limitations of existing research, plus the apparent legitimacy, and puzzling nature of the gender difference in rates of depression, have contributed to the continuing effort at its investigation.

Given the apparent elaboration and progression of gender research to attempt to encompass intraindividual and social/environmental influences in combination, it can be argued that an understanding of the "cognitive world" of the depressive may then provide important clues for the gender question. Coyne and Otlib (1983) have pointed out that the historical resurgence of cognition in psychology is exemplified by a vast, growing, and promising research literature on cognitive conceptions of depression. One of the most provocative models of depression, which has implications for the study of gender differences, has been
derived from the work of M.E.P. Seligman. Seligman began by studying the relationship between "depressive-like" behavior and induced (learned) helplessness among infrahuman subjects and later extended the perspective to the study of depression in humans. Learned helplessness was defined by Seligman and his colleagues as a perceived lack of contingency between responses and outcomes. The model, as a cognitive basis for depression in humans, underwent a reformulation (Abramson, Seligman, & Teasdale, 1978) based in revised attribution theory. These authors suggested that once people perceive noncontingency, they attribute their helplessness to a cause. It is the pattern, or "style" of such causal ascriptions to everyday events, which may be a crucial cognitive predisposing factor toward depression.

Reviews by Peterson and Seligman (1984) and Sweeney, Anderson, and Bailey (1986) concluded that a preponderance of convergent evidence suggests the existence of an attributional style which is "typical" of depressed persons. Insofar as a depressive pattern of causal attributions may exist, it seems reasonable to propose that demonstrable differences in such a cognitive style may occur among the sexes, and may shed light on the relationship between gender and depression. To elaborate, such findings may lend credence to the importance of gender-specific experience in the understanding of vulnerability to depression. In addition, an increased understanding of gender role sociali-
zation as it relates of cognitive style may shed light on some of the inconsistency in the research on attribution and depression, e.g., as role may be an additional mediating factor hitherto unaccounted for in the literature.

This study examined the issue of gender and depression in the theoretical context provided by Seligman and his colleagues. Furthermore, as noted above, both the sociological and psychological literature appear to concede that the differential socialization experiences of males and females are the relevant dimensions to the study of gender differences in psychopathology, rather than the mere biological and genetic differences between them (Gilbert, 1981; Hammen, 1982; Radloff & Monroe, 1978; Weissman & Klerman, 1977; 1979). In accordance, an analysis of sub-groups of women based on gender role is offered.

The current investigation was also undertaken in an effort to be accountable to relevant contemporary criticism of the attributional model of depression. The vast preponderance of support for the model lies in its demonstration through laboratory-induced situations, and the evaluation of causal ascriptions for hypothetical life events. An extensive exploration of the model's value with respect to actual life events, has not as yet been undertaken.
CHAPTER II

REVIEW OF THE RELEVANT LITERATURE

Learned Helplessness, Depression, and Gender

The theoretical relationship between learned helplessness and the female role was first proposed by Radloff and Monroe (1978), expanded in Radloff and Rae (1979 and Radloff (1980). These authors essentially proposed that the learned helplessness role is a female one; that through various aspects of their socialization women learn less instrumental coping styles than men. Radloff and Monroe review several areas of research literature such as studies of stereotypes, child-rearing practices, "fear of success", and small group influence processes in order to buttress their argument that females receive systematic, direct, "training in helplessness". Most of this research suggests that the expectation of female's behavior is that she is passive, submissive, and in need of help and protection by parents, teachers, media, and even mental health professionals. Through these societal agents, active, goal-oriented behavior, and the development of assertiveness and competence in the female is ignored, punished, or disregarded. To summarize, Radloff and Monroe suggested that if females are more likely than males to learn helplessness by lack of reinforcement of instrumental actions, and helplessness
contributes to depression, then it may be seen as a mediator of the greater incidence of depression in women.

Several empirical studies have been carried out which (in part) have sought a relationship between women, learned helplessness behavior, and depression. Klein, Fencil-Morse, and Seligman (1976) authored one such study, (which will be reviewed in more detail in a later discussion pertaining to attributional style). Briefly, however, these authors investigated whether laboratory-induced helplessness would produce response initiation and cognitive deficits parallel to those shown by depressed subjects without helplessness training. Helplessness was induced via exposing college student subjects to unsolvable cognitive discrimination tasks; within depressed and nondepressed groups, subjects were assigned to either unsolvable, solvable, or control groups. Following the experience of failure (by the "unsolvable" group) vs. success, subjects' performance on a set of anagram tasks was assessed. Overall, the predictions of the learned helplessness model were confirmed. Depressed controls and nondepressed subjects who were "trained" in helplessness showed poorer anagram performance than non-depressed controls. However, statistical analyses revealed no main effects or interactions involving gender.

A later study by Abramson, Garber, Edwards, and Seligman (1978) examined changes in expectancy following success and failure in skill and chance tasks in a clinical
population. Their experimental strategy is typical of many studies testing the original model of learned helplessness and depression in humans. Based on the model, it was hypothesized that because of their general belief in response-reinforcement noncontingency, depressed subjects would respond to skill tasks as if the outcomes were governed by chance. Therefore, relative to the expectancies of nondepressed subjects, the expectancies of depressed subjects in skill tasks should increase less after success and decrease less after failure. Four experimental groups were composed of unipolar depressives, depressed and nondepressed schizophrenics, and normal controls. The results indicated that unipolar depressives showed smaller changes in expectancy of future success after failure in the skill task, than did the normal controls and both schizophrenic groups. The authors interpreted this as lending partial support to the relationship between depression in a clinical population and learned helplessness, and as supportive of their contention that learned helplessness is not a general aspect of all psychopathology. However, as with Klein et al. (1976), Abramson et al. failed to find any sex differences in laboratory-induced helplessness.

An interesting study conducted by Baucom and Danker-Brown (1979) suggested that regardless of a person's sex, he or she may be more susceptible to learned helplessness depending on the degree to which stereotypical sex role
behaviors and attributes are adopted. These authors divided 160 subjects into four sex role "types": androgynous, masculine sex-typed, feminine sex-typed, and undifferentiated. "Androgynous" persons were defined (Bem, 1974) as those persons who possess high degrees of both feminine and masculine traits. Undifferentiated persons were those who possessed low degrees of both. Each subject group was composed of 20 males and 20 females. The methodology used was similar to that of other studies of laboratory-induced helplessness (e.g., Klein, Fencil-Morse, & Seligman, 1976), in which "helpless" subjects were exposed to unsolvable concept formation tasks, and the dependent measures were performance on anagram tasks, and a self-report measure. As they predicted, Baucom and Danker-Brown found that the four sex role types were affected differently by the helplessness condition. The two stereotypic sex role types - masculine and feminine, performed similarly to each other throughout the experiment and were affected on all dependent measures by the helplessness condition (i.e. made more anagram errors, showed motivational deficits, and complained of dysphoria). However, the anagram performances of the androgynous and undifferentiated groups were not affected by the helplessness condition. When analyzed strictly by sex (rather than by sex role), women were not affected more than men by induced helplessness. Thus, once sex roles were taken into account, females were not more susceptible than
males to learned helplessness, as an analog to depression.

In summary, there have been a lack of definitive results in studies which have examined sex differences in helplessness. This is paralleled by the overall inconsistency in research investigations which have extrapolated the learned helplessness model of depression to humans, as reported by Smolen (1978), Costello (1978), and Coyne and Gotlib (1983). By 1978, the model had increasingly come under fire by critics. Criticisms by Buchwald, Coyne, and Cole (1978), and Costello (1978) focused particularly upon the methodological inadequacies of existing research which had purported to support the learned helplessness viewpoint. For example, Costello suggested that there is a plausible alternative motivational hypothesis which could account for subjects' decreased performance on tasks following induced helplessness. Costello also questioned the relevance of laboratory experience of induced helplessness to naturally occurring events in the depressed person's life.

Helplessness Theory: Reformulation

Abramson, Seligman, and Teasdale (1978), in their "reformulation", addressed what they conceded were the two major conceptual flaws of the learned helplessness model. First, they stated, it did not distinguish between cases in which an individual lacks requisite controlling responses that are available to other people, and cases in which the individual and all others do not possess controlling
responses; i.e., "personal" vs. "universal" helplessness. Secondly, the model failed to explain when helplessness is general vs. specific, or chronic vs. acute; dimensions which are likely to be relevant to depression.

The focus of the reformulated perspective was to be a revision in terms of attribution theory, and its direction was already evident in the earlier study conducted by Klein, Fencil-Morse, and Seligman (1976). One of their research questions was "...does it matter if the individual blames his own incompetence or the harshness of the environment for failure?" (p. 509). That is, they wished to investigate whether attributions of failure to an internal or external (personal vs. universal) cause mediated the effects of learned helplessness. Klein et al. manipulated attribution in the following manner: One third of the subjects received instructions designed to increase the likelihood of internal attribution, i.e., they were told that most people could solve the unsolvable problems. One third were told that no one could solve the problems, thereby increasing the likelihood of external attributions. One third received no attribution of failure instructions. The authors found that performance deficits associated with "helplessness training" could be eliminated by instructions which were designed to enhance the possibility of external attributions.

Klein et al.'s results were clearly a foreshadowing of the reformulated hypothesis. Abramson, Seligman, and
Teasdale (1978) essentially proposed that when helplessness is experienced, a person naturally makes causal inferences. These causal ascriptions occur over several relevant dimensions which were proposed to be orthogonal to one another. The first dimension is internality-externality. The second dimension accounts for the fact that helplessness deficits may occur over a broad range of situations, or be restricted to a few or single situations; thus, the globality-specificity continuum. The third dimension pertains to the issue of helplessness deficits as either being long-lived and recurrent, or brief and transient. This is the dimension of stability-instability. Abramson et al. suggested that patterns of causal attribution which reflect more internal, stable, and global ascriptions for negative events should be more likely to result in greater helplessness deficits, and presumably a greater likelihood for depression. That is, Abramson et al. suggested that this cognitive style may be a predisposing, or "risk factor" for depression. Later, Seligman, Abramson, Semmel and von Baeyer (1979) further proposed that individuals with a "depressive" attributional style may be more likely to conversely attribute causality for positive events to more external, unstable, and specific causes. The depressive attributional style came to refer to a supposed uniform, continuous relationship between causal attributions for negative and positive events (Sweeney, Anderson, & Bailey,
1986). Hereafter in the present text, this will be referred to as the "uniform-process assumption".

The reformulated model also proposed (Abramson et al., 1978; Peterson & Seligman, 1984) that the depressive explanatory style can be regarded as trait-like, in so far as it is demonstrated through research as having cross-situational specificity. However, Peterson and Seligman added that it should not be regarded as an invariant characteristic, nor one without the possibility of bidirectional causality with respect to depression.

Attributional Style and Depression

The reformulation of Seligman's model was put to test by numerous researchers in search of a relationship between depression and causal attributions for life events, i.e., a "depressogenic" attributional style. One of the earliest of these studies (Seligman, Abramson, Semmel, and von Baeyer, 1979) is remarkable in two respects. First, it represented a departure from laboratory-task based studies of helplessness/attribution phenomena, perhaps as a response to cogent criticisms of authors such as Costello (1978). Also, Seligman et al. utilized the newly designed Scale of Attributional Style, consisting of 12 hypothetical life situations, which subjects rated for internality, stability, and globality of cause. The Scale was referred to in subsequent research as the Attributional Style Questionnaire, or ASQ.
It is the case that numerous further studies have been carried out using laboratory settings and/or alternative methods of measuring attributional style. For example, Snell, Hawkins, and Belk (1987) conducted a path analysis as a test of the attributional model in a naturalistic achievement setting. Their findings offered support for the role of stability attributions as a mediating factor in depression, in the manner predicted by the reformulation. However, since the present study sought to directly test extensions of Abramson's reformulation utilizing a modified ASQ strategy, the remaining sections of literature review will be restricted to those studies with similar methodology to Seligman, Abramson, Semmel, and von Baeyer (1979).

Seligman et al. (1979) administered the ASQ, the Beck Depression Inventory (BDI), and the Multiple Affect Adjective Checklist (MAACL) to 143 college students. They found that relative to nondepressed students, depressed students (with BDI scores greater than 6) attributed bad outcomes to more internal, stable, and global factors. They also attributed good outcomes to unstable, external factors compared to nondepressed students. The authors concluded that their study provided tentative support for the reformulation of learned helplessness and depression, although the correlational findings for good events were weaker than those for negative events.

In a later study which also used a college student
sample, Blaney, Behar, and Head (1980) reported correlational coefficients for the ASQ and BDI which were less encouraging for the model. With a sample of 169 male and 127 female student subjects, the most robust finding was that of the globality scores for negative events, which were shown to be correlated .30 with BDI scores. Correlational results for internality and stability dimensions, however, were appreciably lower than those found by Seligman et al. (1979). Blaney, Behar, and Head also found that depressed subjects attributed positive events to less internal and stable causes than nondepressed subjects. Although this finding was statistically significant, and supported the attributional model, the authors concluded that, as with most of their results, it was "unimpressive in absolute terms" (p.679).

Golin, Sweeney, and Shaeffer (1981) designed a more complex study which sought evidence for a depressive attributional style and sought to test the causal role of attributions for depression. To do this, they employed a cross-lagged panel correlational analysis. On two occasions separated by one month, 180 student subjects were administered a battery of tests which included Seligman’s attributional questionnaire (ASQ), and the BDI. The attributional dimensions of internality, stability, and globality were found to be correlated with depression in the predicted direction. However, the authors noted that the
relationships were small in magnitude, and far smaller than those reported by Seligman et al. (1979). In the causal analysis, Golin, Sweeney, and Shaeffer found significant differences between the cross-lagged correlations for the stability and globality measures for negative events. These findings were in accord with the view that such attributions are causes of depressive symptoms. There was, however, no support for the hypothesis that internal attributions for negative events play a similar causal role. With respect to positive outcomes, Golin et al. found support for only the contention that unstable attributions may play a causal role in depression.

Metalsky, Abramson, Seligman, Semmel, and Peterson (1982) argued that the attributional model of depression should apply to the development of transient depressive affect in response to negative life events. They utilized a prospective, quasi-experimental design in a naturalistic setting to test the hypothesis that students showing a generalized tendency to make internal, stable, and global attributions for negative events would be more likely than students not showing such tendencies to experience depressed mood upon receiving a low grade on an exam. The Attributional Style Questionnaire and Multiple Affect Adjective Checklist (MAACL) were administered to 227 subjects before and after the receipt of a midterm grade. The authors found that internality and globality subscales correlated
significantly with MAACL changes in the students who received low grades. That is, the analysis supported the experimental hypothesis for these two dimensions, but not for the stability subscale.

Johnson, Petzel, & Sperduto (1983) conducted an additional correlational study, which sought to improve sampling and measurement procedures, in order to help resolve inconsistencies in the earlier research. The 144 student subjects were equally distributed as to gender and race within each of four groups, depending on the level of depression. Subjects completed the BDI and the ASQ. The investigators found that very few of the correlations in the study reached significance, thereby lending little support for the existence of a particular attributional style in depressives. Furthermore, they noted that the ASQ accounted for very little of the variance in the data. Similar figures in prior research (e.g., Blaney, Behar, & Head, 1980) caused Johnson et al. to conclude that the effectiveness of the ASQ in measuring attributional concomitants of depression should be questioned.

The research described thus far, pertaining to attributional style and depression, utilized samples of college student volunteers. A number of studies have been conducted which tested the assertions of the reformulated model using clinical populations. Raps, Peterson, Reinhard, Abramson, and Seligman (1982) measured the attributional
style (using the ASQ) of 30 formally diagnosed hospitalized, unipolar depressives. Formal diagnoses were arrived at by the use of DSM III diagnostic criteria, and self-report (BDI>8). They compared these scores with those of 15 nondepressed schizophrenic patients and 61 nondepressed medical and surgical patients (to control for the effects of hospitalization and of overall psychopathology). All subjects were males. The medical/surgical patients had a BDI score of 4 or less, and were judged to be free of significant psychiatric disturbance according to attending medical staff (Raps et al.'s findings with respect to global psychopathology will be discussed at a later point). The authors found that the unipolar depressives were significantly more likely to attribute negative events to internal, stable, and global causes. This effect was demonstrated for each individual dimension as well as across the composite of all three. Relative to the medical controls (but not to the schizophrenics), the depressed group tended to offer significantly more external and unstable attributions for positive events. However, like the findings of Blaney et al. (1980), the evidence for a depressive attributional style for good events was considerably weaker than in the case of negative events.

Eaves and Rush (1984) conducted a study with 31 depressed female psychiatric patients (five inpatient and 26 outpatient). All of these subjects met Research Diagnostic
Criteria for unipolar nonpsychotic Major Depressive Disorder, and were further divided by the RDC into endogeneous and nonendogeneous groups. An age, sex, and education matched control group of 17 subjects was recruited from the community. This group was evaluated by clinical interview to determine that their histories were free from any occurrence of psychiatric disorder. Depression indices for the depressed group included the Hamilton Rating Scale for Depression (HRS-D), and the Schedule for Affective Disorders and Schizophrenia, as well as a structured clinical inter­view. All subjects were administered several self-report measures of dysfunctional cognition, including the ASQ, at two different testing sessions. They were assessed at Time 1 (when symptomatic), and later when clinically remitted (Time 2), according to the HRS-D ratings obtained by phone interview. Several subjects did not recover from depression (N=7), and thus provided the investigators with an addition­al unremitted comparison group. Eaves and Rush found that depressed patients, whether endogenous, nonendogenous, or unremitted, attributed negative outcomes to internal, stable, and global factors (at both Time 1 and Time 2) to a significantly greater degree than did control groups. This depressive attributional style was furthermore consistent across individual causal dimensions and the composite ASQ scores, at both times. With regard to positive events, two of the depressive groups were significantly less internal,
stable, and global in their causal attributions. However, they were not biased toward external, unstable, or specific factors. Consistent with earlier research, the depressive attributional style was more clearly suggested with respect to negative events. One of the most striking findings of this study was that depressive attributions persisted in the subject groups whose depressions had remitted (i.e., persisted such that they still significantly differed from normal controls). Eaves and Rush viewed this as limited support for the aspect of the reformulated model (Abramson, et al., 1978) which contends that the depressive style is a stable, trait-like, pre-existing vulnerability factor, rather than a state-dependent correlate.

Persons and Rao (1985) conducted a study of psychiatric patients which directly addressed this stability, or "trait" assumption within the reformulated model. The authors first hypothesized the relationship between attributions and depression predicted by Abramson et al.'s (1978) model. They further hypothesized that the relationship between cognitions and depression, as well as the cognitions themselves, would remain stable over time. Persons and Rao administered questionnaires assessing mood, cognitions, and life events, at three separate occasions; when the patient was admitted to the hospital, when he or she was discharged, and at seven months following discharge. Their sample was composed of subjects aged 17 to 59, who had no record of
organic dysfunction, retardation, or psychosis. Forty-nine subjects provided admissions (Time 1) data, 32 of these provided discharge data, and 20 of the original 49 provided follow-up information. At each testing session, subjects completed the BDI, the ASQ, a survey of recent life events, and a checklist of irrational beliefs (as another theoretically relevant cognition). Strictly correlational analyses showed BDI scores were significantly associated with four of the six attributional measures (internal-negative, global-negative, internal-positive, and stable-positive) in the predicted directions. A multiple regression procedure, however, yielded much weaker support for the model. While composite attribution scores for positive and negative events contributed to level of depression in the predicted direction, separate examination of each attributional variable yielded only two significant interactions. Stressful life events, associated with a decreased tendency to make internal attributions for positive events, was associated with increased depression. However, the other significant interaction between life events and stable attributions for negative events, was shown to contribute to depression in the direction opposite to the model's prediction.

Persons and Rao (1985) also found that all three attributional scores for negative life events changed over time (from the first to the third test session). Further-
more, as BDI scores changed over time (during treatment), subjects' tendency to make internal, stable, and global attributions for negative events decreased. The authors concluded that the significant changes in attributions over time failed to support the "stability" or trait assumption, i.e., that attributional style is a stable, relatively unchanging aspect of personality. Notwithstanding the given limitations of multiple regression procedures, to which the authors admit, their results posed a challenge to the findings of Eaves and Rush (1984).

Less optimistic evidence for the attributional model was reported by Hargreaves (1985) who investigated the ASQ scores of a British mixed-sex neurotic depressed population in comparison to a nondepressed control group. The two groups were matched for age and sex. The depressed patients were 26 inpatients and 24 outpatients who were free from psychosis, retardation, organicity, and addictions, and who scored above 15 on the Beck Depression Inventory. The control sample was composed of 50 members of a university subject pool, scoring below 15 on the BDI. Results failed to support the existence of a depressive attributional style as predicted by Abramson et al.'s (1978) model. Hargreaves pointed out that while the contrast between her findings and studies of student populations are understandable due to sampling differences, the failure to replicate results of clinical studies such as Raps et al. (1984) warrants further
A later study by Zimmerman, Coryell, and Wilson (1986) sampled 169 psychiatric inpatients and 50 healthy controls. They administered the ASQ and assessed level of depression via the Hamilton Rating Scale for Depression. Healthy controls were solicited by community newspaper and screened via extensive clinical interviews. Psychiatric patients were subdivided using case histories and DSM III criteria into separate groups of 25 schizophrenics, 57 psychotic depressives, and 87 nonpsychotic depressives. The authors found no significant differences in attribution scores between the two depressed groups, and thus combined them for the remaining analyses. They found that depressed inpatients made significantly more internal and global attributions for negative life events than did healthy controls. Composite attribution scores for negative events were also significantly different from control scores in the predicted direction. The schizophrenics scored higher than the healthy controls on the ASQ globality factor for negative events. There was no significant difference between schizophrenics and controls on the ASQ internality, stability, and composite scores. However, none of the differences between schizophrenics and either group of depressives reached significance, even when Zimmerman et al. excluded 10 schizophrenics with HRS scores above 10 (suggesting a concurrent affective syndrome). The authors concluded that
the diagnostic specificity of the ASQ remains an empirical question, and that future studies of the specificity of psychological constructs predisposing toward depression need to make clearer whether these vulnerabilities are toward depressive illness, or depressive symptoms.

A study by Johnson, Petzel, and Munic (1986) utilized the ASQ and the Beck Depression Inventory, with a sample of 123 psychiatric patients and 22 control subjects from a metropolitan weight loss program. Additional detail regarding subgroupings of subjects will be given in a later discussion. Correlational analyses revealed that depressives (BDI>10) were more likely than nondepressives to attribute negative outcomes to internal, stable, and global causes. With respect to positive outcomes, only the internality dimension conformed to the expectations of the reformulated model. The authors noted that research had thus far consistently suggested that the positive event subset of causal attributions shows less robustness than the negative, in supporting the model's predictions.

Real Events, Attribution, and Depression

The beginning of a new tradition in attribution research was exemplified by Gong-Guy and Hammen (1980), who argued that studies such as Seligman et al.'s (1979) are limited in generalizability because although they are not laboratory-task situations, they nevertheless use "hypothetical situations... with limited personal meaningfulness" (p.
That is, the authors wondered whether depressed and nondepressed subjects would differ when explaining personally important events. This sentiment was echoed and elaborated on by Harvey (1981) who stated that the validity of the research to date was limited severely by the artificial and structured methods used to assess attributional style. Harvey argued that the question remained as to whether subjects readily employed causal explanations identifiable in terms of Abramson et al.'s (1978) causal dimensions "when not prompted by an achievement-related hypothetical event, or guided by structured rating scales" (p. 135). Hammen and her colleagues were among the first to explore the possibility of a depressive attributional style by using an alternative methodology which assesses causal attributions for subjects' actual life events.

Gong-Guy and Hammen (1980) sampled 65 clients in an outpatient psychology clinic. They administered the BDI, a Life Events Inventory, and the newly designed Attribution Questionnaire. The attribution measure required subjects to choose the five most stressful events from among those they listed in the Life Events Inventory, and to make causal ascriptions similar to those required by the ASQ. The investigators found no important differences (between depressed and nondepressed subjects) in attributional style when all five events were included in the analysis. However, when only the "most upsetting" event was analyzed,
depressed clients made significantly more internal attributions than the nondepressed clients, and differences in globality and stability approached significance.

A later study by Hammen, Krantz, and Cochran (1981) also attempted to test the attribution hypothesis regarding depression, in the context of personally meaningful events. Comparisons between nondepressed and mildly depressed (BDI < 9) groups of college students on causal ascriptions were made for two specific events, and for mean attributions across all five events. The two specific events were the commonly reported issues of "starting college" and "problems in a romantic relationship". In both the event-specific and general comparisons, the only dimension of causality which was significantly related to depression was globality.

An additional study with similar methodology was reported by Hammen and Cochran (1981). Their sample of 400 college students was divided into three groups based on BDI scores and reported number of stressful life events. The first group was composed of persons scoring above 16 on the BDI; the second was a nondepressed group with high levels of recent stressors, and the third was a control group of nondepressed subjects with stressors matched approximately with the depressed group. Results indicated that the three groups did not differ overall in their attributional ratings of their five most distressing events. Also, when an analysis of the subjects' single most distressing event was
completed, no significant group differences in attributional style were found.

An interesting study by Zautra, Guenther, and Chartier (1985) assessed attributional ratings for both real life events and hypothetical (ASQ) events in 178 male and female undergraduate students. The authors employed a unique "daily log" methodology in which subjects were asked to write down the most pleasant and unpleasant experiences of the day, each evening for 14 days. They then answered the standard attributional questions about each event. Subjects had also completed the BDI and ASQ in a group-administration setting. Zautra et al. found that for hypothetical (ASQ) events, internal attributions for negative events were significantly associated with depression only when subjects' attributions for these events were also stable. Neither internal or stable attributions for negative events were signifiantly related to depression scores. Globality and composite scores for negative events were significantly correlated with depression scores in the predicted direction. In the case of real-life "diary" events, all three attributional dimensions for negative life events were significant in the predicted direction. These findings are in contrast with those of Hammen, Krantz, and Cochran (1981), and Hammen and Cochran (1981). However, similar to Zautra et al.'s analysis of the ASQ, attributions for positive real events did not show a significant trend toward
external, unstable or specific causes, in relation to depression scores.

Zautra et al.'s (1985) findings for negative events (both hypothetical and real) were as predicted by the reformulated model. However, the authors concluded that there was no evidence for a single, uniform, underlying attributional style (qua pathological process) with respect to depression. Attributions about positive outcomes were statistically unrelated to attributions made about negative outcomes. The authors suggested the necessity of treating negative and positive event attributions separately in future research, since cognitive interpretations of each type of event may be distinct phenomena. However, they also urge further investigation of the uniform-process assumption in Seligman's theory.

Overall, Zautra et al. (1985) found attributions for real life events to be similar in effect to ratings of hypothetical life events. They viewed this as evidence that the ASQ may remain a productive and valid method for elucidating relations among cognitions and depression. However, they suggested that a real-event approach may be more sensitive to subjects' attributional patterns in interpreting their own life experiences.

Two studies have investigated attributional style and actual life events with clinically depressed populations. Miller, Klee, and Norman (1982) sampled 70 psychiatric
inpatients and divided them into depressed and nondepressed groups based on multiple criteria. Patients were classified as depressed if they scored greater than 17 on the BDI, fulfilled Research Diagnostic Criteria for depression, and had depression identified as the major problem via structured clinical interviews. All subjects were administered the BDI, given three positive and three negative event scenarios from the ASQ, and asked to identify their single most stressful life event of the past six months (selected from a life events schedule). The subjects responded to the usual attribution questions with respect to the hypothetical and real events. In contrast to the findings of Hammen and Cochran (1981), Miller et al. found that depressed subjects had higher composite attributional scores for their stressful personal life events than nondepressed patients. No group differences in attributional style for hypothetical events were found.

Power (1987) conducted an investigation of causal attributions for real and hypothetical events with a sample of 18 hospitalized depressed inpatients and 18 hospitalized medical controls who were matched on several demographic characteristics. The experimental group carried a primary diagnosis of depression, and were not bipolar or suffering from psychotic symptoms. Depression severity was measured by the Carroll Rating Scale for Depression. All subjects were administered the ASQ, and also asked to recall negative
events which had occurred in the past two years. They were also asked for a list of events likely to occur in the near future. The standard causal attribution questions, with 7-point scaled ratings, were completed for the five most negative past events, and five most negative anticipated future events. It was found that depressed patients attributed the five real events to significantly more stable and global causes than did controls. In addition, the depressed group made significantly more internal attributions for their most negative recent-past life event. The only significant group difference in attributional ratings with respect to future events was globality.

For hypothetical (ASQ) events, all causal dimensions with respect to negative events were significant in the direction predicted by the reformulated model. Depressed patients also rated positive ASQ events as significantly more external and unstable than control subjects, suggesting some modest support for the uniform-process assumption of the reformulated model. Power (1987) concluded, in contrast to the implications of Miller, Klee, and Norman (1982), that the best support for the model emerged with respect to hypothetical ASQ events. In addition, the more complicated attributional patterns shown in the study of past and future real life events suggested that the reformulated model may not be sufficiently complex to account for the relationship between depression and real life experiences.
Attributional Style and Depression: Conclusions

A summary of the findings and implications of the research in attributional style and depression is best outlined with reference to three recent extensive literature reviews of the subject. Coyne and Gotlib (1983), in a review of 25 studies (including laboratory, ASQ, and real-life event designs) conducted between 1978 and 1982, pointed out that following the initial promising findings of Seligman et al. (1979), subsequent research (particularly using the ASQ) yielded much weaker support. The detailed review of the statistical results revealed that correlational findings other than Seligman et al.'s were somewhat unimpressive in magnitude. Added to their observation that research on actual life events thus far had emerged with mixed (if any) support for the model, the authors felt compelled to suggest that the reformulated model may have limited usefulness in enlarging our understanding of depressive phenomena.

Peterson and Seligman (1984) countered Coyne and Gotlib's (1983) pessimistic conclusions, in their review of a number of published and unpublished studies utilizing various methodologies to investigate the reformulated model. Summarizing findings from cross-sectional, longitudinal, naturalistic, laboratory, and case study designs, Peterson and Seligman concluded that the research literature seems to converge, overall, in support of the model's predictions.
They furthermore suggested that studies which disconfirm the model may be employing unvalidated measurement strategies which sample too few stressful events (e.g. by administering fragments of the ASQ, or requesting only one actual life event).

Sweeney, Anderson, and Bailey (1986) offered a more extensive analysis of the research literature on attribution and depression, which included over 100 studies (29 unpublished and 75 published). The authors of the two prior reviews, described above, cited less than one fifth of these papers. Also, instead of the traditional literature review, Sweeney et al. used a meta-analytic procedure on the research findings. For negative outcomes, meta-analytic tests of significance and tests of effect size revealed that the literature supports that internal, stable, global, and composite attributions are positively associated with depression. Conversely, analysis of findings with respect to positive events suggested that internal, stable, and global attributions are negatively associated with depression. The authors concluded, however, that this inverse relationship was a weaker one, and that much fewer "unretrieved" or unpublished studies demonstrating a null effect would be needed to overturn it.

Finally, Sweeney et al. (1986) found that the attribution-depression relation seemed to remain significant independent of the type of subject sampled (clinical vs.
nonclinical), and reasonably independent of the type of event sampled (e.g., real vs. hypothetical). However, they did uncover some differences in the way subjects made causal attributions for negative-real vs. negative-hypothetical events, which did not coalesce in any consistent pattern, and thus remained unexplained.

Overall, Sweeney, Anderson, and Bailey (1986) represent the most powerfully optimistic perspective on the viability of the reformulated model. However, considerable debate remains in the literature regarding the value and alleged superiority of meta-analytic techniques (Cook & Leviton, 1980). Irrespective of Sweeney et al.'s optimism, the "waters" seem to have become muddied when the reformulated model was and is extended to an analysis of real, personally relevant life events, and when it is extended to clinical, or other more heterogeneous populations (e.g., Hargreaves, 1985). Investigators are still left to grapple for the meaning of contrasting findings such as those of Hargreaves (1985) vs. Johnson, Petzel, and Munic (1986); or of Hammen and Cochran (1981) vs. Power (1987). Also, a relatively tiny number of studies have assessed real life events at all, and these studies have generated unclear and inconsistent findings. Peterson and Seligman (1984) offered the suggestion that truncated or inadequate assessments of attributional style may be partially at fault. Yet with certain exceptions (e.g., Miller, Klee, & Norman, 1982),
this does not seem borne out by the present research review. Most of the studies cited above did assess multiple life events (e.g. Hammen, Krantz, & Cochran, 1981; Power, 1987), and at least two (Power, 1987; Zautra, Guenther, & Chartier, 1985) sought evidence for concurrent validity of real-event measurement strategies.

One common thread which weaves through the three literature reviews cited above, is the weakness of the evidence for a depressive attributional style with respect to positive life events. As such, the uniform-process assumption underlying the reformulated model may be still considered an investigative priority.

In conclusion, there seem to remain sufficient questions regarding the adequacy of Abramson et al.'s (1978) model, particularly with respect to actual life experiences and varied populations, to warrant continued investigative energies. Further remarks about methodological and conceptual considerations in the attribution-depression research will be made in the subsequent Summary of Relevant Literature.

**Incidence of Depressive Attributional Style in Women**

Several studies have been carried out which explore the incidence of a depressive attributional style among specific groups of women. One study, by Peterson, Schwartz, and Seligman (1981) utilized the BDI and an expanded version of the ASQ with a group of 87 female college students. This
study was actually a test of an alternative but related causal model (Janoff-Bulman, 1979) which distinguishes between two types of internal attributions. Janoff-Bulman proposed that individuals can blame themselves for having engaged in (or having failed to engage in) a particular behavior; or they could blame themselves for the kind of people they are, i.e., faulting their character. She suggested that it is only the esteem-related, or "characterological" self-blame strategy (which corresponds to an internal and stable attribution for Abramson et al.) which relates to depression, whereas behavioral self-blame may be an adaptive, control-oriented response. Peterson, Schwartz, and Seligman found that depression was positively correlated with characterological self-blame, but negatively correlated with behavioral self-blame (an internal unstable attribution).

Navarra (1981; cited in Peterson & Seligman, 1984) administered the ASQ and the Beck Depression Inventory to forty-one Philadelphia women on welfare, who were recruited through newspaper advertisement. Internal, global, and composite causal explanations for negative events were found to be significantly correlated with depression.

Manly, McMahon, Bradley, and Davidson (1982) studied the attributional hypothesis in the context of women's adjustment following childbirth. They administered the ASQ, the BDI, the Depressive Adjective Checklist, and an ex-
perimental depression measure to 50 women whose pregnancies and births were healthy and uneventful. Attributional style and depression were assessed concurrently in the third trimester, and depression was assessed three days postpartum. Results did not support the attributional style hypothesis either as concomitant, or as predictive of depressive symptoms in their sample.

Manley et al.'s (1982) study has been criticized because it measured depression only three days postpartum, when there are hormonal changes in all women which are potentially depressogenic. In a later study by Cutrona (1983), 85 women were followed from the third trimester of pregnancy through the second month after childbirth. Initial attributional style was assessed using the six negative events from the ASQ. Women were assessed for level of depression (BDI>9) at three separate time points: during the third trimester, two weeks postpartum, and eight weeks postpartum. Cutrona found that pregnancy scores on the ASQ did predict level of postpartum depression among women who were not depressed during pregnancy. However, among women who were depressed during pregnancy, attributional style was not a significant predictor of depression.

In one sense, the childbirth studies can be seen as "parallels" to the efforts by Hammen and her colleagues to provide "real-life", event-specific analyses for attributional style and depression. However, the results must be
interpreted cautiously (in terms of generalizability), since it may be that postpartum depression is a distinct clinical entity from non-pregnancy related depression.

Timko and Janoff-Bulman (1983) administered the BDI and interviewed 42 women who had undergone a mastectomy subsequent to a diagnosis of breast cancer. The interviewer assessed the subjects' causal beliefs about their cancer, and beliefs about the success of the surgery and the avoidability of future cancer. Once again, this was primarily an investigation of Janoff-Bulman's (1979) articulation of characterological vs. behavioral self-blame cognitions in the victim experience. Women who explained their cancer in terms of behavior (internal, unstable, and specific causes) believed that they were cancer free and scored lower on the BDI. Women who explained their cancer in terms of personality factors (internal, stable, and global causes) tended to believe that they were not cancer free, and scored significantly higher on the BDI. The authors noted that although this evidence supported the predictions of the reformulated model, factors such as severity and chronicity of the disease may affect the relationship observed between the explanation and emotional reaction.

Finally, in a study by Eaves and Rush (1984) described earlier, the sample of 31 depressed female patients was observed to attribute negative outcomes to significantly
Sex Differences in Attributional Style and Depression

The attributional model has been examined in the course of several research investigations as having potential explanatory value for the previously observed sex difference in the epidemiology of depression (Weissman & Klerman, 1977). In five studies discussed above (Blaney, Behar, & Head, 1980; Hammen, Krantz, & Cochran, 1981; Hargreaves, 1985; Johnson, Petzel, & Sperduto, 1983; Miller, Klee, & Norman, 1982), no differences in male and female causal attributions for stressful life events were found. However, it must also be recalled that the latter four of these studies revealed little support for the attributional model in the overall samples.

A study conducted by Calicchia and Pardine (1984) explored the reformulated theory by comparing the attributional style of both male and female psychiatric outpatients who had been diagnosed in one of three categories: Adjustment Disorder with Depressed Mood (n=33), Dysthymic Disorder (n=48), or Unipolar Major Depressive Disorder (n=36). An expanded form of the ASQ was administered to all subjects. The authors found (in contrast to the above cited studies) that regardless of degree of clinical depression (diagnostic category) females made significantly more internal, stable, and global attributions for negative events than did males.
In their discussion, they remarked that far too little research attention had thus far been paid to sex and sex-role differences as they may relate to attributional style and depression.

**Sex Roles and Depression**

Chevron, Quinlan, and Blatt (1978) proposed that symptomatic expressions of depression in men and women may be related to cultural stereotypes and sex role expectations. They conducted a study investigating differential patterns of symptom expression in men and women with different degrees of conformity to traditional sex roles. The authors had established from previous research that certain traits and behaviors are consistently expected and valued in the sexes; for example, dependency, passivity, and expressivity of feeling in females, and independence, achievement motivation, and an "action-orientation" in males. Chevron et al. administered the Zung Self-Rating Depression Scale, the Depressive Experiences Questionnaire, and the Sex Role Stereotype Questionnaire to 87 female and 41 male college student subjects. Scores on the Competency and Warmth-Expressiveness scales of the sex role measure indicated the degree to which a subject's perceptions of self were consistent with the aforementioned positively valued traits for males and females, respectively. The authors found, as expected, that males scored significantly higher on Competency and significantly lower on Warmth-
Expressiveness than females. They also found that females reported more depressive experiences which centered around themes of dependency on others. Perhaps most importantly, however, was that females who described themselves as significantly less warm and expressive (less stereotypically feminine) scored higher on the Zung Depression Scale. In addition, males who scored higher on the Zung described themselves as less competent (stereotypically male)—suggesting that a lack of congruence with the positively valued traits of one's own sex may be related to depression. A later investigator (Whitley, 1984) referred to this perspective on the gender-depression relation as the "congruence model".

Bem (1974) proposed a dramatically different perspective on sex differences which has relevance to the gender-depression relationship. She questioned the assertion that the highly sex-typed ("congruent") individual possessed the greater likelihood for good psychological adjustment. Instead, Bem suggested the possibility that strong sex role typing may result in behavioral inflexibility—thus impairing the individual's capacity to adapt in some situations. She proposed that androgynous individuals, those possessing high degrees of both masculine and feminine traits, may be more psychologically and behaviorally flexible and possess greater likelihood for psychological health.
A number of published studies have tested the "androgyny model" specifically with respect to depressive phenomena, as well as other indices of psychological distress/well-being. Baucom and Danker-Brown (1979), whose study was described in detail earlier, investigated the impact of sex role orientation on the development of (laboratory-induced) learned helplessness. They found that feminine sex-typed and masculine sex-typed subjects, regardless of gender, developed cognitive and motivational deficits and complained of dysphoric mood in response to the helplessness condition. However, the androgynous or undifferentiated subject groups were significantly less affected by the helplessness condition, which was in accordance with the predictions of Bem's (1974) model.

Holahan and Spence (1980) compared the self-reports of a mixed-sex group of 154 students seeking help at a University counseling service, with those of 594 nonhelp-seeking students. Subjects completed the Personality Attributes Questionnaire (PAQ) and the Texas Social Behavior Inventory (TSBI). The PAQ, which measured masculinity and femininity as trait constellations, was designed by Spence and Helmrich (1975) with the intention of surpassing the Bem Sex Role Inventory in psychometric quality. The TSBI measured several domains of social/self experience, including self-esteem, social competence, and subjects' affective experience (i.e., depression, worry) relative to
certain potential problem areas, such as school, work, or relationships. Holahan and Spence found that in the client group overall (males and females together), scores on the masculinity scale were lower than those of the nonhelp-seeking group. Also, they found that in men and women within the client group, the subdivision of the masculinity scale which measured socially "desireable" traits like decisiveness and independence, was negatively correlated with the TSBI indices of depression and worry.

Hinrichsen, Follansbee, and Ganellen (1981) examined differences in reported self-concept and psychological health between androgynous, sex-typed, cross sex-typed, and undifferentiated males and females. It was hypothesized that androgynous subjects would manifest more positive self-concepts and more positive scores on measures of psychological health than sex-typed subjects. They also proposed that both androgynous and cross sex-typed females (i.e. those scoring high in masculinity), would manifest more positive scores on all dependent measures. Hinrichsen et al. administered the Bem Sex Role Inventory and the Tennessee Self-Concept Scale to 142 male and 107 female college student subjects. The median split scoring procedure for the BSRI resulted in 33% of subjects being classified as sex-typed, 30% as cross sex-typed, and 25% as undifferentiated. Results indicated that as expected, androgynous subjects achieved the highest means on all seven TSCS scales
which tapped specific components of self-concept. On the empirical subscales of the TSCS which measured psychological health, androgynous subjects scored in a significantly more positive direction than sex-typed subjects on three of the five scales (General Maladjustment, Neurosis, and Personality Disorder). Overall, cross sex-typed females did not manifest uniformly more positive self-concepts or greater psychological health than other sex role types. However, for three of the seven self-concept scales, the scores of androgynous and cross sex-typed females did not differ significantly, which would not be expected by Bem. The authors suggested that in certain domains, the more masculine the orientation of females, the "healthier" they might be. Whitley (1984) would refer to this notion as a third model for the relationship between sex role orientation and psychological health - the "masculinity model".

Elpern and Karp (1984) administered the Bem Sex Role Inventory and the NIMH-Center for Epidemiological Studies Depression Scale to 40 male and 40 female volunteers. They found that in males, lower masculinity scores were associated with greater depression. Also, masculine men were significantly less depressed than both undifferentiated and feminine men. Female subjects who scored high in masculinity were significantly less depressed than low-masculinity women. Most interestingly, when comparing sex role types among female subjects, those that fell into the
traditionally feminine category (high femininity, combined with low masculinity) were more depressed than women in any of the other sex role categories. High femininity scores alone were not sufficient to produce this effect. No differences in depression based on biological gender alone were observed, and the authors concluded from their study that sex role appeared to be a more potent predictor of depression than gender.

Thomas and Reznikoff (1984) conducted a planned comparison of normal and clinical groups to examine the implications of masculinity and femininity on psychological adjustment. They administered the Comrey Personality Scales (CPS) and the Personality Attribute Questionnaire to 222 females (nonclinical group) and 47 female inpatients who were not actively psychotic or neurologically impaired. The PAQ yielded four sex role categories: Masculine females, Feminine females, Androgynous females, and Undifferentiated females. Thomas and Reznikoff expected that masculine and androgynous females would exceed feminine females on the CPS index of emotional stability, and that feminine females would appear more frequently in the clinical group. As predicted, masculine females and androgynous females were significantly higher in emotional stability as measured by the CPS. However, there was no significant difference between the frequencies of feminine females in the clinical and normal groups. The authors suggested (p. 33) that the
repeated association of femininity and mental illness may have "nothing at all to do with femininity per se, but simply the lack of an instrumental (masculinity) component in the identities of certain women". Their findings support both the masculinity model and to some extent the androgyny model of sex role/adjustment relationship.

Whitley (1984) conducted two meta-analyses which examined the adequacy of the three models articulated to explain the relationship between sex roles and psychological well-being; the congruence model, the androgyny model, and the masculinity model. He selected 32 studies which assessed sex role orientation using instruments which reflected a two-dimensional operationalization of sex role, and which either used depression scores or a more general measure of adjustment as the dependent variable. Of the twelve studies assessing depression, Whitley found that contrary to the predictions of the congruence model, there was no difference in effect size as a function of sex of subject or sex by sex role interaction. When the results were collapsed across sex, there was a negative relationship between masculinity and depression, and essentially no relationship between femininity and depression; findings which supported the masculinity model. Analysis of the "general adjustment" studies revealed that there were positive relationships between general adjustment and subjects' high scores in both masculinity and femininity,
which provided some support for the androgyny model. However, there was no difference in effect size as a function of sex or sex by sex role interaction, again failing to support the congruence model. Whitley concluded overall, that the evidence in both depression and general adjustment studies provide the best support for the masculinity model. He further proposed that the relationship between masculinity and low depression/high adjustment may reflect the individual's strong belief in self-efficacy (Bandura, 1977) which is explicitly measured by the agentic/masculine scale of many sex role inventories, and which is thought to be related to low levels of depression (Abramson et al., 1978). The findings of Holahan and Spence (1980) with respect to the specific trait clusters of decisiveness and independence would seem to be illustrative of this possibility. It would also seem coincident with the observations of Thomas and Reznikoff with respect to the potentially paramount nature of the presence of masculine "instrumentality" in the well-adjusted person. Whitley encouraged further research in this domain of cognitive functioning.

The studies described thus far which have investigated the relationship between gender role and depressive phenomena, or psychological adjustment, have examined sex role as a trait variable. That is, masculinity and femininity are assumed to be inner psychological attributes,
not attitudinal patterns or patterns of behavior that a
given culture deems differentially appropriate for the sexes
(Gilbert, 1981). Few studies have examined sex role
preferences, role behaviors, or role satisfaction in
relation to depression, or psychological adjustment.

One such study was conducted by Amenson and Lewinsohn
(1981), who chose to examine cognitive, attitudinal, and
social role factors in investigating the observed epidemiolo-
gical sex difference in depression. The authors also
investigated the "artifact hypothesis", which alleges that
the sex difference in prevalence of depression is due to the
fact that women perceive, acknowledge, report, and seek help
for depression more freely than men do - or that diagnos-
ticians tend to overdiagnose depression in women.

Amenson and Lewinsohn (1981) specifically wished to
examine the plausibility of Gove's (1972) perspective that
the marital/housewife role, self-reported lack of role
satisfaction, or other demographic variables such as age,
education, and income (e.g., being poorer) may be risk
factors for depression in women. In addition, they proposed
that current psychological theories of depression may
explain the sex differential. Among their hypotheses were
that women have lower expectations for positive outcome, are
more likely to make internal attributions for negative
events, tend to subscribe to more irrational beliefs, and
experience greater occurrence of stressful life events. The
investigators recruited 998 subjects, of which 568 were selected to be interviewed on the basis of high scores on the NIMH CES-D scale. Effort was made to account for all depressive experiences by several administrations of the CES-D scale between the start of the study (T1), and its completion (T2). Diagnoses of depression were based on a 2-hour semistructured interview, the Schedule of Affective Disorders and Schizophrenia (SADS). Depression was defined as being assigned via the interview process to the RDC diagnostic category of unipolar depression. Past history of depression was also assessed. Subjects completed extensive questionnaires which assessed patterns of help-seeking, demographic variables, feelings of satisfaction, irrational beliefs, tendency to internalize blame for failure, locus of control, expectancy of positive vs. negative outcomes, frequency of pleasant events, and occurrence of stressful events. First, a sex differential in the RDC diagnosis of depression was observed, which was not paralleled by a greater prevalence in other diagnostic categories. It was found that contrary to the artifact hypothesis, when men and women were matched for symptom level on the basis of their T1 CES-D scores, they were equally likely to label themselves as depressed, seek help for depression, or to be diagnosed as depressed. While all psychological variables (except for internal attribution for failure) were significantly associated with depression, women did not score
significantly more in the depressed direction than men. Demographic analyses revealed that housewives were no more depressed than working women or unmarried women. Also, women expressed more satisfaction than men with their neighborhood and friends, and they reported enjoying more pleasant activities than men. Amenson and Lewinsohn concluded in puzzlement that women seemed more likely to be depressed regardless of role choice, and in spite of scoring as more "healthy" on psychological variables presumably related to depression.

Kingery (1985) proposed a unique perspective on the sex role/depression relationship which encompasses situational variables, i.e., actual life situations or behaviors. She examined the influence of sex role orientation on depression scores for 84 married males and females, suggesting that a consistency between role orientation and actual situation should enhance mental well-being. Kingery administered the CES-D scale and the Attitudes Toward Women Scale (AWS) to subjects, and collected information on employment status. The AWS measures sex role attitudes on a continuum from a more traditional to nontraditional orientation. Data were first analyzed to determine whether AWS scores and depression scores were correlated. Correlations for the overall sample were not significant, but when broken down by sex, AWS and CES-D scores were positively correlated for females, but not for males. That is, women
with a more nontraditional sex role orientation were more depressed than traditional women. At first glance, this would seem in contrast to analogous research using Bem’s trait constructs in which it was found (Elpern & Karp, 1984; Whitley, 1984) that the more one departs from traditional femininity to embody the qualities which are considered masculine, the greater one’s probability of psychological adjustment. However, Kingery further investigated the interaction of AWS scores with situation, specifically with respect to employment status of wives. It was found that high AWS (nontraditional) housewives exhibited the highest depression scores in the group. Low AWS (traditional) housewives exhibited the lowest depression scores for female subjects. High AWS housewives reported feeling more restricted by their parental roles, and desired fulfillment apart from home and family. Also, Low-AWS (traditional) males whose wives were employed had higher depression scores than the liberal males with working wives. Traditional husbands of housewives were the least depressed males. Kingery concluded that the findings emphasized the necessity for examining the influence of sex role orientation on depression both by sex and by situational/behavioral context.
Sex Roles, Depression, and Attributional Style

Little research has been done investigating sex roles as they relate to depression and attributional styles. Latza (1986) subdivided 50 females by median split into nontraditional and traditional sex role orientations, based on scores on the AWS. These, and 28 male subjects also completed a Beck Depression Inventory and an Attributional Style Questionnaire. It was expected that traditional women would score higher in depression than men, and that traditional women were likely to make more internal, stable and global attributions for negative life events than nontraditional women or men. The findings did not support either hypothesis.

Summary: Relevant Literature

In summary, the impetus for the study of gender role as it relates to cognitive styles and depression was first evident in the learned helplessness literature. The revision of learned helplessness theory in attributional terms (Abramson, Seligman, & Teasdale, 1978) continues to provide opportunity for empirical exploration of these issues. However, research continues to generate many puzzling theoretical and methodological questions (as well as inconsistencies which are difficult to account for) with regard to the attribution-depression relationship.
In an elegant effort to examine factors which may be responsible for inconsistent results in the published literature, and the range of optimism and pessimism encountered in literature reviews to date, Peterson, Villanova, and Raps (1985) suggested several issues for contemporary research to address. One such issue was that attribution research, whose findings do not support the reformulated model may be assessing too few events. This particular point is not well supported by the current research review, yet it seems a worthwhile caution that attribution measures should assess multiple events. The authors argued that in doing so, the likelihood of falsely accepting the null hypothesis decreases because of a lessened likelihood that subjects' causal attributions reflect extraneous determinants.

Peterson, Villanova, and Raps (1985) suggested (as does the present literature review) that stronger support for the reformulated model is found when hypothetical (ASQ) events are sampled. If so, the capacity for the reformulated model to explain depressive experience in real life contexts is seriously challenged. The meta-analytic review of Sweeney, Anderson, and Bailey (1986) did not support this contention. This inconsistency may or may not be accounted for by limitations of meta-analytic techniques (Cook & Leviton, 1982). Regardless, Peterson et al. emphasized that whenever events to be explained differ across subjects (as
in the assessment of real events), unknown variance is introduced, and it may be more difficult to find a depressive style. Furthermore, regardless of Sweeney et al.'s perspective, a miniscule number of studies (whose findings have been inconsistent) has been conducted assessing real events, in comparison to the plethora of research investigations assessing hypothetical events.

The measurement of depression has also been a target for critical discussion. Depue and Monroe (1978) pointed out that definitions of depression in the research have ranged from mild "blues" complaints, and transient depressive reactions (e.g. Metalsky et al., 1982) to full-blown Major Depression (e.g. Gong-Guy & Hammen, 1980). This range of description, they argued, has essentially obscured meaningful and integrative conclusions about cognition and depression. Method of assessing depression, and type of depressive phenomena studied, often varies with the nature of the population being sampled (Peterson, Villanova, & Raps, 1985). Research using student samples often employed questionnaire assessment of symptomatic complaints of depression, whereas research with clinical samples frequently utilized complex psychiatric diagnostic strategies for the elucidation of specific clinical syndromes. Depue and Monroe (1978) criticized that it is not clear what type of depressive disorder the helplessness reformulation is meant to explain. The work of other authors (Gotlib, 1984; Nezu,
Nezu, & Nezu, 1986) suggested that subclinical levels of depression (most frequently found in student samples) may be insufficiently distinguishable from other forms of maladaptive functioning or from "global distress", to allow for valid conclusions regarding the model's explanatory power with depressive phenomena in particular. Because of the serious challenge posed by this perspective for the validity of the model, some elaboration herein is deserved.

Gotlib (1984) administered seven self-report measures to 443 students, which yielded seventeen different pathology scales including indices of depression, anxiety, obsessive-compulsive ideation, hostility, unassertiveness, and paranoid ideation. All of the scales were found to be significantly intercorrelated. A factor analysis revealed that on 14 of the scales, a single factor accounted for 50% of the variance, which Gotlib argued might best be labeled (p. 26) "dysphoria, malaise, or general psychological distress". He questioned the ability of self-report measures to differentiate specific forms of pathology, and urged caution in extrapolating findings from student subjects scoring high on the Beck Depression Inventory. In a similar vein, Nezu, Nezu, and Nezu (1986) found that in 134 student subjects, scores on the BDI were highly correlated with measures of state and trait anxiety, psychosomatic symptoms, and unassertiveness. They also found that internal, stable, and causal attributions made on the ASQ
were strongly associated with all measures of distress. These findings would seem to support Gotlib's (1984) critical assertions. However, the findings of two studies described earlier which specifically explored for the effects of general psychopathology (Johnson, Petzel, & Munic, 1986; Raps et al., 1982) suggested that the depressive style is a function of depression per se, and not of global psychopathology. In addition, DSM III includes as associated features of Major Depression, such things as anxiety and somatic symptoms. It is therefore of little wonder that Nezu et al. (1985) and Gotlib (1984) made such observations, and it does not seem to rule out the possibility of discriminant study of depressive experience.

Persons and Rao (1985) addressed the controversy surrounding symptomatic vs. syndromatic approaches to measuring depression by restating Seligman's proposed intentions (Seligman, 1978; cited in Persons & Rao, 1985) for the theory to account for the motivational, cognitive, emotional, and self-esteem deficits, i.e., symptoms, in a not-yet identified class of depressions which may cut across the usual, currently utilized nosologies of depression. If so, Persons and Rao argued, one can justify a symptomatic approach which assumes that the cognitive mechanisms underlying symptoms of depression are independent of psychiatric diagnosis, or patient status. Regardless of diagnosis, severity of symptoms of depression should be
related to severity of cognitive deficit (in this case, depressive attributional style). This point of view would seem to obviate the need for excessive concern about "college student vs. clinical sample" issues (yet Persons and Rao accede that the question of what kinds of depression are explained remains of theoretical and empirical relevance). It should also be added that both the meta-analytic review of Sweeney, Anderson, and Bailey (1986) and the traditional literary review of Peterson, Villanova, and Raps (1985) did not find differences in overall support for the reformulated model in studies utilizing psychiatric vs. college student samples.

Other issues remain particularly thorny for investigators of the attribution-depression relationship, however. The literature consistently reveals weaker support for the attributional predictions for positive events, than for negative events, calling into question the uniform-process assumption in the reformulation. Some authors (e.g., Zautra et al., 1985) have explored the possibility that depressives may be more "evenhanded" in their attributions for all events, i.e., have fixed and inflexible ways of regarding the causes of life events. In addition, studies which have examined the stability of attributional style over time have yielded inconsistent results (e.g. Eaves & Rush, 1984 vs. Persons & Rao, 1985). Not only does it remain unclear whether attributional style is a stable,
unchanging aspect of personality, the causal status of such a style i.e., as a "vulnerability" or "risk" factor is also uncertain.

Studies which have explored the incidence of a depressive attributional style in groups of female subjects have suggested the possibility of explanatory power in the attributional model for the experience of depression in women. However, the idiosyncratic nature of the samples used (e.g. cancer patients, postpartum women) limited the generalizability of the findings. With one notable exception (Calicchia & Pardine, 1984), research utilizing groups of male and female subjects failed to find evidence of sex differences in attributional style. Of course, since several of these studies did not support the existence of a depressive attributional style in the overall sample, conclusions regarding sex differences in attributional style must await further research.

It is argued here, that in light of the review of the literature, the study of women as a homogeneous group may have obscured actual differences among them in cognitive style and depressive experiences, and between men and women. It may be that the "gender issue" in depression is not primarily an issue of gender, but rather of gender role orientation. This view was proposed even in the early epidemiological literature. Weissman and Klerman (1977) suggested that elements of the traditional female role play
an important role in the vulnerability of women to depression. Radloff and Monroe (1978) suggested that "it is plausible ... that certain groups of women are less likely to have internalized the 'helplessness' aspects of femininity; for example, women who attain advanced education, high status careers, high income, and women who do not marry" (p. 207). That is, Radloff and Monroe expected to see fewer cognitive correlates of depression in women who are socialized to be more nontraditional.

Other precedents have been set for the study of gender role and depression. Differences in sex role orientation have been studied with respect to other personality variables presumably related to good adjustment, for example, self-esteem (Lobbia, 1983; Stericker & Johnson, 1977), and achievement motivation (Dweck & Goetz, 1978; Ickes & Layden, 1978; Taggart-Davies, 1980).

Research was reviewed herein which addressed more directly the relationship between sex roles and emotional adjustment, and between sex roles and depression. Early findings (Chevron, Quinlan, & Blatt, 1978) suggested that a lack of congruence with positively valued traits of one's own sex may increase the likelihood of depression. However, Bem's (1974) androgyny model, and the research which investigated it, challenged this perspective, suggesting that the possession of traits which are characteristic of both sexes may engender the greater likelihood of emotional
adjustment. Most current research (Elpern & Karp, 1984; Thomas & Reznikoff, 1984; Whitley, 1984) lends some support to the androgyny perspective, but lends even stronger support for the masculinity model. That is, the further women move from the traditionally valued traits of their own sex, to a more "masculine" orientation, the greater likelihood for psychological adjustment. Furthermore, Elpern and Karp (1984) reported the finding that high levels of traditional femininity were significantly associated with depression.

Most research efforts to date, however, have focused on the assessment of sex role orientation as a trait, or aggregate of traits. A number of cogent methodological criticisms have been aimed at this body of literature. Chief among them, is that of Pedhazur and Tetenbaum (1979) who conducted extensive analyses of the psychometric adequacy of the Bem Sex Role Inventory. Factor analyses revealed that Bem's classification of BSRI traits into masculine, feminine, and neutral may have been untenable. They also criticized Bem's, and other investigators' (e.g. Hinrichsen et al., 1981) use of median split techniques to classify sex-typed and androgynous individuals. The authors pointed out that when one uses median splits, one runs the risk of classifying some of the people whose scores are relatively similar, as being of different types, and some whose scores are relatively dissimilar, as being of the same
Locksley and Colten (1979) applauded efforts of investigators like Spence and Helmrich (1975) who attempted to improve the assessment of trait constructs of masculinity, femininity, and androgyny. However, they criticized the conceptual foundations of androgyny theory, alleging that the "fatal flaw" lies in the theory's implication that androgyny or sex role type can be independent of sex-related social effects on personality and behavior. Because, they argued, it is impossible to escape the pervasive, structuralizing aspect of gender on one's behavior, the so-called "trait" of androgyny may be a case of "mistaken identity", i.e., an arbitrary assignation.

Other critics, (e.g., Robinson & Follingstead, 1985) have alleged that the overemphasis on broad trait constructs has permitted a neglect of other relevant dimensions of sex role orientation, such as sex role behaviors/preferences, and attitudes, and their investigation in relation to psychological adjustment or psychopathology. Robinson and Follingstead cite the oft-told social psychological finding that attitudes and behaviors don't always coincide, emphasizing the importance of including these dimensions of gender role experience in future research. The research of Amenson and Lewinsohn (1981), Kingery (1985), and Latza (1986) represent attempts in that direction, although taken together their findings are inconclusive regarding the
gender-depression issue. In addition, virtually no research has examined the ramifications of sex role attitudes and behaviors on the psychological functioning of men.

Finally, it has been suggested that there is a need for a more diversified model of depression which would take into account a wider variety of cognitive variables. For example, social learning literature suggests that cognitions about consequences of stressful life events may be an additional determinant of depression. Bandura (1978; 1984) in particular writes extensively regarding self-efficacy expectations and "human despondency". Whitley (1984) has suggested that it may be the agentic, efficacious aspect of the self-concept of stereotypically masculine men which may account for their lower likelihood of depression and/or better psychological adjustment. Gong-Guy and Hammel (1980) envisioned a "complex, highly reciprocal interaction model of stresses, causal attributions, cognitions about consequences, and coping..." (p. 668). These authors were cognizant of the need to study the relationships between depression and several cognitive variables simultaneously, as a beginning to specify the parameters of such a model.
Statement of the Problem

The present study was designed to further explore the capacity of the attributional model to elucidate differential patterns of cognition and depression among college men and women who experience depressive symptoms. In light of the relative paucity of research testing the adequacy of the reformulated model in the context of actual life experiences, assessment of attributions for multiple real life events was undertaken. Furthermore, the assessment of severity of depressive symptoms, rather than presence of diagnostic syndromes was conducted. Global psychopathology was also not assessed. While the investigation of the stability assumption and causality question in the attributional model was beyond the scope of the current study (and to be best addressed in longitudinal research design), effort was made to explore the uniform process assumption.

In addition, the present study recognized that the focal issue in the study of gender differences in depression may actually be gender role orientation. The literature reviewed here suggested that aspects of the "traditional" female role may be causally relevant to depression. Accordingly, a subdivision of female subjects into "traditional" and "nontraditional" sex role orientations was attempted. Subdivision of groups was accomplished by means
of normative data available on sex role measures, rather than through the use of median split techniques. Also, attitudinal and behavioral dimensions of sex role, rather than trait constructs, were assessed. Review of the literature revealed that the differential implications of these two aspects of sex role orientation has barely begun to be researched; and therefore they were under consideration in the present study. Because, however, some authors (Baucom & Sanders, 1978) established empirical relationship between trait constructs, e.g., of "masculinity" and "femininity", and sex role attitudes, hypotheses could be justifiably derived from the trait-construct research.

Lastly, critics of the attributional model of depression seem to concur that causal attributions are probably only one of several domains of cognition which are relevant to depressive phenomena. Several authors have suggested that self-efficacy may be an additional determinant of depression, or may offset the impact of other, presumably "depressogenic" cognitions. The present study included a preliminary exploration of the role of self-efficacy with respect to attributional style, gender role, and depression.
Hypotheses

1. Women score higher in depression than men.

2. Women who score higher in role traditionality (as measured by the AWS or by the RBI) report higher levels of depression than nontraditional women.

3. Traditional women (AWS or RBI) report more depression than men.

4. Traditional women, as designated by the AWS, make more internal, stable, and global attributions for negative life events than nontraditional women or men.

4a. With respect to positive outcomes, it is hypothesized that traditional women are more likely to attribute causes to external, unstable, and specific factors, than less traditional women, or men.

5. Traditional women, as designated by the RBI, make more internal, stable, and global attributions for negative life events than nontraditional women, or men.

5a. With respect to positive outcomes, the effect proposed in hypothesis 4a is also expected.
CHAPTER III

METHOD

Subjects and Procedure

The subjects who took part in this study were 161 female and 88 male undergraduate students at Loyola University of Chicago. Most of the subjects participated in order to fulfill a requirement for an introductory psychology course in which they were enrolled. However, approximately 1/4 volunteered to participate as a result of informal recruitment from other undergraduate psychology courses. The subjects were predominantly white (76%), Catholic (71%), and single (96%). Females ranged in age from 17 to 53 years (M = 19.7, SD= 3.66). Males ranged in age from 17 to 33, (M= 19.4, SD= 2.70).

Most subjects were assembled by the experimenter in groups of up to 20 individuals, for the administration of questionnaires. Those who were recruited informally were provided the packet of test materials, instructed to complete them in the order provided and in one sitting, and asked to return them to the instructor at the following class meeting. All subjects were informed that they were participating in a study of "feelings, beliefs about oneself and one's social roles, and the way people interpret
everyday events". They were then asked to complete a series of self-report instruments, which took approximately one to 1 1/2 hours. The questionnaires were administered with counterbalancing via random starting order with rotation to control for testing effects.

Self-Report Measures

Beck Depression Inventory. The BDI (Beck et al., 1961) is a 21-item multiple choice format questionnaire designed to assess level of depression. Scores range from 0 to 63. Manly et al. (1982) summarized known reliability and validity information for the BDI, reporting that the BDI correlates significantly with other measures of depression, including psychiatrists' ratings, the Hamilton Rating Scale for Depression, observational measures, the DACL, the Minnesota Multiphasic Personality Inventory (MMPI) Depression scale, and Zung's Self-Rating Depression scale. Estimates of internal consistency are high, with test-retest correlations reported at .75, and odd-even item correlation of .86 (Beck, 1967).

Attitudes Toward Women Scale. The AWS-short form is a 25-item Likert-type scale which contains statements about the rights and roles of women in several areas (Spence, Helmrich, & Stapp, 1973). It contains items pertaining to vocational, educational, and intellectual pursuits, as well as marital relationships, dating, and sexual behavior. Items have four response alternatives, ranging from agree
strongly to disagree strongly. Each item is given a score from 0 to 3, with 0 representing the most traditional and 3 the most nontraditional, profeminist response. Spence et al. reported that correlations between the short form and long form ranged from .956 to .969, and that whole-part correlations for the short form were all significant (p< .001), and ranged from .31 to .73 with the modal value for both sexes being in the .50's. Spence, Helmrich, & Stapp (1975) reported significant correlations between scores on the PAQ Masculinity-femininity scale and the AWS Short Form. Beere (1979) reported several studies which supported the validity of the measure. One study which compared N.O.W. members (a feminist organization) with college women and mothers of college women revealed that N.O.W. members scored significantly higher than both groups. Another study compared AWS Short Form scores in five groups of women: a political group, college women, housewives, a women's religious group, and a "Country Women's Association". The results rank ordered the five groups in the expected direction, and the differences between each of the successive groups were significant.

Role Behavior Inventory. The RBI is a 34-item sex role inventory which was designed by Robinson and Follingstead (1985) to assess differential rates of traditional and nontraditional behaviors for women. The authors hoped that their measure would enable researchers to
"determine whether attitudes and behaviors have a close correspondence or whether in the area of sex role behaviors there is a discrepancy" (p. 692). Items were constructed primarily by rephrasing items from well-established attitudinal and trait scales into behavioral terms. Six categories of derived behavior emerged: Feminist activity, Independence (e.g. traveling alone, decision-making), Assertiveness (sexual and interpersonal), Positive attitudes and valuing of other women, Declining vs. accepting chivalrous attention from males, and Division of labor or responsibility in intimate relationships/households. Respondents are asked to indicate how frequently they have engaged in specific sex-typed behaviors in the past year, and how likely they are to engage in those behaviors in the upcoming year. Items which refer to future behavior offer options from "will definitely not do so" to "will definitely do so", with eight points in between. Past behavior frequencies are reported on a scale that ranges from 0 to 9 occurrences, or on a percentage scale that ranges from 0 to 90% of the time. Total scores may range for 0, the most traditional, to 360, the most nontraditional. There were two forms of the scale constructed - Married and Single forms, which are identical in scale format and scoring, and contain 20 common items. See Appendix A for the content of the single form.

Careful attention was paid to the psychometric detail
in the construction of the scale, and Robinson and Follingstead (1985) reported extensive information on reliability and validity. Measures of internal consistency were $r(474) = .95$, $p < .001$ and $r(265) = .96$, $p < .001$ respectively for Single and Married forms. Split-half reliabilities were $r(574) = .83$, $p < .001$ and $r(265) = .92$, $p < .001$. Test-retest correlations were $r(61) = .86$, $p < .001$ and $r(34) = .82$, $p < .001$. Convergent validity analyses revealed significant and moderate correlations between both forms of the RBI and scores on the Attitudes Toward Women Scale. Subjects' indications of their overall agreement with the ideas of the women's movement correlated significantly with scores on both forms of the RBI. The RBI also showed discriminant validity with a social desireability scale, a political orientation scale, and an assertiveness scale.

The Self-Efficacy Scale. The SES (Sherer & Maddux, 1982) is a 30-item rating scale which consists of a 17-item General Self-Efficacy subscale, a 6-item Social Self-Efficacy subscale, and seven filler items. Only the General Self-Efficacy scores were used in the present study. Items in this subscale focused on three areas: (a) willingness to initiate behavior, (b) willingness to expend effort in completing the behavior, and (c) persistence in the face of adversity. Response options range from 1 (disagree strongly) to 5 (agree strongly), yielding potential scores ranging from 17 to 85 with high scores reflecting high self-
efficacy expectations. Sherer and Maddux reported a Cronbach's alpha reliability coefficient of .86 for this subscale. To assess construct validity, SES scores were correlated with a number of other established measures of personality characteristics which were presumably related to self-efficacy, but not synonymous. These measures included, among others, a measure of interpersonal competency, internal-external locus of control, and a self-esteem scale. All correlations were significant and in the appropriate direction, lending to the authors' conclusion that the SES is a psychometrically adequate and potentially useful research instrument. See Appendix B for the content of this scale.

The Attribution Questionnaire. This measure was adapted from the methodology of Gong-Guy and Hammen (1981) who asked subjects to choose five of their own most stressful recent life events and make causal attributions identical to those required by the ASQ. In the present study, subjects were asked to recall the five most negative events, and five most positive events which had occurred over the last year and respond to the attributional questions. Also, since the only evidence for a depressive attributional style in the study of actual life events has emerged when subjects' most stressful events were analyzed alone (Gong-Guy & Hammen, 1981), subjects in the present study were asked to rank events from most upsetting (negative) to least, and from
most positive to least positive.

In addition to the above self-report measures, subjects were asked to complete a brief general data sheet, an example of which is included in Appendix C.
CHAPTER IV

RESULTS

Design Overview

The first task of this investigation was, as proposed earlier, to subdivide subjects into experimental groups based on gender role orientation. The nontraditional versus traditional dimension contained in the AWS and RBI scales provided the basis for doing so. Since the AWS is a global measure of sex role attitudes, designed for use with both genders, males were also subdivided along this dimension. The RBI, however, was not designed to assess the degree of stereotypically male behavior affirmed by males, and therefore male subjects remained unselected for RBI analyses.

Spence, Helmrich, and Stapp (1973) provided norms for the AWS-Short form, recommending a cutoff score of 50 for females, and 45 for males for assignment of subjects to traditional and nontraditional sex role categories. Robinson and Follingstead’s (1985) normative data for the RBI yielded a recommended cutoff score of 163 and below for traditional women, and 201 and above for nontraditional women, with middle scores unclassified. In the current sample, only 4% of female subjects scored above 200 on the RBI. For this reason, only the lower cutoff (163 and below) was utilized to classify subjects into sex role categories.

In the present research, the correlational
relationship between sex role measures was .068 (p= n.s.). All analyses were carried out separately, first for subject groups established by RBI scores, then for groups established by AWS scores as the criterion for membership.

It was noted that 35 subjects did not report the total number (5) of life events requested by the Attribution Questionnaire. To include these subjects for analysis, each raw score was converted to an average score based on the number of events reported by the subject. This strategy has been in a number of studies investigating a depressive attributional style, e.g., Peterson and Seligman (1981). The mean number of negative events reported in the current sample was 4.71, SD= .90; positive events M= 4.89, SD= .42.

To examine the first three hypotheses, which pertained to group differences in depression, one-way analyses of variance were used. Hypotheses 4, 4a, 5, and 5a pertained to group differences in attributional dimensions of internality, stability, and globality. These were analyzed with AWS groups via a 4(traditional-nontraditional women, traditional-nontraditional men) by 2(positive-negative event) by 3(internality-stability-globality) ANOVA with repeated measures on the second and third factors. Identical analyses were performed with RBI groups of traditional women, nontraditional women, and unselected males.

To explore the issue of self-efficacy, several
analyses were completed. One-way analyses of variance examined for group differences and gender differences in self-efficacy. A Pearson product-moment correlation was computed between self-efficacy and depression scores. A simple regression was employed to examine the relative contribution of depression scores, and self-efficacy scores, to the variance in sex role scores (RBI) in women.

Evaluation of Hypotheses

No significant differences were observed for demographic characteristics between gender, or gender role groups.

The one-way analysis of variance for sex differences in scores on the BDI was nonsignificant, $F(1,247) = 0.00, p = n.s.$ This result did not support the hypothesis that women differ from men in level of depression. There were no group differences in levels of depression using the AWS as the criterion for group membership, $F(3,245) = .05, p = n.s.$ However, a significant group difference in depression was found, in the analysis of the RBI groups, $F(2,246) = 3.45, p < .05$. Pairwise comparisons revealed that traditional women were more depressed than nontraditional women, but that neither group of women differed significantly in depression from men. These findings were in support of hypothesis 2, (that traditional women report higher levels of depression than nontraditional women) but not hypothesis 3 (that traditional women would be more depressed than men). Tables 1 and 2 summarize mean sex role
and depression scores in sex role groups demarcated by the AWS and the RBI, respectively.

The analysis of group differences in attributional style, examining the AWS groups, revealed no significant group main effect, $F(3, 238) = 2.24$, $p = n.s.$ The two-way interaction between sex role and event also proved nonsignificant, $F(3, 238) = 1.94$, $p = n.s.$, indicating no group differences in composite attributions made for either type of event. The two-way interaction between sex role and attribution proved significant, $F(6, 476) = 2.93$, $p < .001$. Multiple comparisons revealed that nontraditional women made significantly fewer internal attributions than did both groups of men. However, traditional and nontraditional women did not differ significantly in internal attributions for negative events, as proposed in hypotheses 4 and 4a.

Multiple comparisons also revealed that AWS nontraditional women attributed more stable causes to negative events than did nontraditional men. No (AWS) group differences for any of the three attributional dimensions with respect to positive events were found. Overall, the AWS findings were not in support of the hypothesis that traditional women make more internal, stable, and global attributions for negative events, than other subject groups, nor the hypothesis that they make more external, unstable, and situation-specific attributions for positive events. The overall implications of findings relative to
Table 1

Descriptive Statistics for Sex Role and Depression Scores, in Groups Categorized by Attitudes Toward Women Scale.

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<td>M</td>
<td>SD</td>
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<td>Traditional</td>
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<td>Women</td>
<td>46.6</td>
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<td>8.76</td>
<td>5.70</td>
<td>140.23</td>
<td>21.66</td>
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<tr>
<td>Nontraditional</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Women</td>
<td>62.10</td>
<td>5.71</td>
<td>8.59</td>
<td>7.83</td>
<td>161.34</td>
<td>25.12</td>
</tr>
<tr>
<td>(N=135,135,133)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Traditional</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Men</td>
<td>38.23</td>
<td>7.78</td>
<td>8.57</td>
<td>5.12</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>(N=30,30,28)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nontraditional</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Men</td>
<td>55.00</td>
<td>6.52</td>
<td>8.86</td>
<td>6.88</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>(N=57,57,54)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Ns for AWS, BDI, RBI cells respectively.
Table 2

Descriptive Statistics for Sex Role and Depression Scores in Groups Categorized by Role Behavior Inventory.

<table>
<thead>
<tr>
<th></th>
<th>RBI M</th>
<th>RBI SD</th>
<th>BDI M</th>
<th>BDI SD</th>
<th>AWS M</th>
<th>AWS SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Traditional Women (N=93,93,93)</td>
<td>142.34</td>
<td>15.96</td>
<td>9.75</td>
<td>8.16</td>
<td>57.63</td>
<td>7.62</td>
</tr>
<tr>
<td>Nontraditional Women (N=63,63,62)</td>
<td>182.05</td>
<td>17.49</td>
<td>6.84</td>
<td>6.20</td>
<td>63.19</td>
<td>6.45</td>
</tr>
<tr>
<td>Males (Unselected) (N=83,88,87)</td>
<td>---</td>
<td>---</td>
<td>8.70</td>
<td>6.28</td>
<td>49.21</td>
<td>10.60</td>
</tr>
</tbody>
</table>

*Ns for RBI, BDI, and AWS cells respectively.
nontraditional women will be addressed in the discussion to follow.

The analysis of group differences in attributional style, examining the RBI groups, revealed a group main effect which approached significance, \( F (2,235) = 2.81, p = .06 \), and revealed a significant sex role by event interaction, \( F (2,235) = 3.48, p < .05 \). Multiple comparisons demonstrated that nontraditional women scored higher in composite (internal, stable, and global) attributions for positive events than did men. No other group differences in composite attributions (e.g., for negative events) were found. The analyses of RBI groups also resulted in a significant two-way interaction between sex role and attribution, \( F (4,470) = 4.05, p < .001 \). Multiple comparisons revealed that women in both groups made fewer internal attributions for negative events, than did men. This result is not in support of the segment of hypothesis #4 which is that traditional women score higher in internal attributions for negative events than other subject groups. Traditional women were also found to make more stable attributions for negative events than did men, a finding which is in support of hypothesis #4, but which was not observed in the AWS-group analysis. In addition, it was also found that traditional women made more internal attributions for positive events than did men, a finding was not expected in the present hypotheses.
Tables 3 and 4 summarize cell means and standard deviations for the large factorials. Table 5 represents all attributional findings in grid form, for ease of comparison.

Most Negative and Most Positive Events

An evaluation of the attributional hypotheses was carried out utilizing the AQ scores for the most negative and most positive events reported by subjects, in accordance with the methodology of Gong-Guy and Hammen (1980). For the AWS groups, a significant group main effect was observed, $F(2, 216) = 3.37, p < .05$. When probed by multiple comparisons, it was found that traditional women made more composite attributions for their most positive event than did men. This result is not in support of the hypothesis that traditional women attribute more external, stable, and specific causes to positive events than other subject groups. No other significant group differences in attributional dimensions were found in the AWS-group analyses.

In the analyses of RBI groups, there was a significant group main effect, $F(2, 213) = 4.97, p < .01$, and a significant three-way interaction (sex role by event by attribution), $F(4, 426) = 3.01, p = .02$. It was found that nontraditional women scored higher (i.e., in a more depressive direction) in composite attributions for their most positive event than did men. In the only pairwise comparison of individual attributional dimensions which
Table 3

Cell Means and Standard Deviations for Attribution Scores by Experimental
Group (AWS).

<table>
<thead>
<tr>
<th></th>
<th>Traditional Women</th>
<th>Non-Traditional Women</th>
<th>Traditional Men</th>
<th>Non-Traditional Men</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Negative Event</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Internality</td>
<td>3.51 (1.21)</td>
<td>3.31 (1.00)</td>
<td>3.88 (.78)</td>
<td>3.78 (.90)</td>
</tr>
<tr>
<td>Stability</td>
<td>4.25 (1.18)</td>
<td>4.17 (1.04)</td>
<td>3.95 (.72)</td>
<td>3.64 (1.15)</td>
</tr>
<tr>
<td>Globality</td>
<td>4.12 (1.03)</td>
<td>4.16 (1.15)</td>
<td>4.26 (.93)</td>
<td>3.85 (.99)</td>
</tr>
<tr>
<td>Composite</td>
<td>11.8 (2.30)</td>
<td>11.61 (2.03)</td>
<td>12.09 (1.35)</td>
<td>11.27 (2.27)</td>
</tr>
<tr>
<td><strong>Positive Event</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Internality</td>
<td>5.20 (.95)</td>
<td>5.01 (.91)</td>
<td>4.92 (1.00)</td>
<td>4.80 (.93)</td>
</tr>
<tr>
<td>Stability</td>
<td>4.54 (1.11)</td>
<td>4.31 (1.20)</td>
<td>4.21 (1.09)</td>
<td>4.40 (1.18)</td>
</tr>
<tr>
<td>Globality</td>
<td>5.10 (1.04)</td>
<td>5.43 (.92)</td>
<td>4.85 (.97)</td>
<td>4.75 (1.15)</td>
</tr>
<tr>
<td>Composite</td>
<td>14.86 (2.00)</td>
<td>14.75 (1.94)</td>
<td>13.99 (2.17)</td>
<td>13.95 (1.93)</td>
</tr>
</tbody>
</table>

N = 24          N = 132          N = 29          N = 57
Table 4

Cell Means and Standard Deviations for Attribution Scores
by Experimental Group (RBI).

<table>
<thead>
<tr>
<th></th>
<th>Traditional Women</th>
<th>Nontraditional Women</th>
<th>Men</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Negative Event</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Internality</td>
<td>3.27 (.98)</td>
<td>3.42 (1.14)</td>
<td>3.81 (.86)</td>
</tr>
<tr>
<td>Stability</td>
<td>4.22 (1.08)</td>
<td>4.15 (1.04)</td>
<td>3.75 (1.03)</td>
</tr>
<tr>
<td>Globality</td>
<td>4.20 (1.12)</td>
<td>4.03 (1.17)</td>
<td>3.99 (.98)</td>
</tr>
<tr>
<td>Composite</td>
<td>11.68 (1.99)</td>
<td>11.54 (2.16)</td>
<td>11.55 (2.02)</td>
</tr>
<tr>
<td><strong>Positive Event</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Internality</td>
<td>4.99 (.98)</td>
<td>5.13 (.85)</td>
<td>4.84 (.95)</td>
</tr>
<tr>
<td>Stability</td>
<td>4.18 (1.17)</td>
<td>4.60 (1.13)</td>
<td>4.35 (1.14)</td>
</tr>
<tr>
<td>Globality</td>
<td>5.38 (.89)</td>
<td>5.41 (1.04)</td>
<td>4.78 (1.08)</td>
</tr>
<tr>
<td>Composite</td>
<td>14.56 (1.81)</td>
<td>15.14 (2.15)</td>
<td>13.97 (1.99)</td>
</tr>
</tbody>
</table>

N = 92        N = 60        N = 87
### Table 5

#### Grid Summary: Significant Group Differences in Attributional Style

<table>
<thead>
<tr>
<th></th>
<th>Negative Composite</th>
<th>Negative Internality</th>
<th>Negative Stability</th>
<th>Negative Globality</th>
<th>Positive Composite</th>
<th>Positive Internality</th>
<th>Positive Stability</th>
<th>Positive Globality</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>AWS Groups</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>All events</td>
<td>None</td>
<td>NTF*&lt;TM and NTM</td>
<td>NTF&gt;NTM</td>
<td>None</td>
<td>None</td>
<td>None</td>
<td>None</td>
<td>None</td>
</tr>
<tr>
<td>RBI groups</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>All events</td>
<td>None</td>
<td>TF and NTF &lt;M</td>
<td>TF&gt;TM</td>
<td>None</td>
<td>NTF&gt;M</td>
<td>TF&gt;M</td>
<td>None</td>
<td>None</td>
</tr>
<tr>
<td><strong>AWS groups</strong></td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Most Negative/</td>
<td>None</td>
<td>None</td>
<td>None</td>
<td>None</td>
<td>TF&gt;TM</td>
<td>None</td>
<td>None</td>
<td>None</td>
</tr>
<tr>
<td>Positive event</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>and NTM</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>RBI groups</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Most Negative/</td>
<td>None</td>
<td>None</td>
<td>None</td>
<td>None</td>
<td>NTF&gt;M</td>
<td>None</td>
<td>None</td>
<td>None</td>
</tr>
<tr>
<td>Positive event</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>and NTM</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Gender</strong></td>
<td>None</td>
<td>F&lt;M</td>
<td>F&gt;M</td>
<td>None</td>
<td>F&gt;M</td>
<td>None</td>
<td>None</td>
<td>F&gt;M</td>
</tr>
</tbody>
</table>

TF = Traditional females  
NTF = Nontraditional females  
TM = Traditional males  
NTM = Nontraditional males  
F = All females  
M = All males
yielded significance, traditional women made more global attributions for their most positive event than did men. This finding was not in support of the attributional hypotheses. Again, Table 5 includes a grid summary of these findings.

Other Findings of Interest: Attributional Style

In repeated measures ANOVAs which tested for sex differences in attributional style, a significant gender main effect was found, $F(1, 241) = 4.90, p < .05$, and a significant gender by event interaction was also found, $F(1, 241) = 3.91, p < .05$. Multiple comparisons revealed that women scored higher in composite attributions for positive events than did men. A significant sex by attribution interaction was also found, $F(2, 482) = 6.96, p < .001$. Multiple comparisons revealed that men scored higher in internal attributions for negative events than women, but that women scored higher in stable attributions for negative events than did men. It was also found that women scored higher in globality for positive events than did men. See Table 5 for grid summary.

The overall presence of a depressive attributional style in depressed persons was assessed by analyses of variance. It was found that depressed subjects ($BDI > 9$) did not differ significantly from nondepressed subjects in internal, stable, and global (composite) attributions for negative events, $F(1, 241) = 1.02, p = n.s.$ Also, depressed
subjects did not differ significantly from nondepressed subjects in composite attributions for positive events, $F(1,241) = 1.09$, $p = n.s.$

An effort was made to explore post hoc the issue of "evenhandedness" in causal explanation, which had been addressed by Raps et al. (1982). Raps et al. reported literature which suggested that depressed persons (or persons at risk for depression) may be more evenhanded in attributional style, attributing similar causality for both positive and negative events. Nondepressed persons, on the other hand, may be "biased" in a self-serving way, explaining positive events by internal, stable, and global causes, while explaining negative events with the "opposite" style, thus cognitively "inoculating" them from depression. In the present study, evenhandedness scores were formed for each composite score by calculating (as did Raps et al.) the absolute value of a subject's composite score for positive events minus the score for negative events. One would expect that if RBI traditional women are the most depressed RBI subject group (as was the case, although the greater level of depression was not significant with respect to males), then this group may exhibit more evenhandedness of causal style than other subject groups. In one-way analyses of variance with AWS groups, no significant group differences in evenhandedness were found, $F(2,238) = 1.55$, $p = n.s.$ In the analysis of RBI groups, a significant group
difference was found, $F(2,235) = 3.42, p < .05$. Pairwise comparisons revealed only that nontraditiona
l women were less evenhanded than males. There were also no group differences in evenhandedness examining composite scores for 
most negative and most positive events, in either RBI groups, $F(3,199) = 2.28$, $p = n.s.$, or AWS groups, $F(3,216) = 1.78, p = n.s.$ A one-way analysis of variance also failed to find a significant group difference in evenhandedness between depressed (BDI>9) and nondepressed subjects in the overall sample, $F(1,241) = 2.41, p = n.s.$ In addition, a correlation between BDI scores and evenhandedness in the overall sample was positive but nonsignificant, $r(241) = .06, p = .32$.

Zautra et al. (1985) considered the uniform process issue in the attributional model, examining the correlation between negative and positive event composite attributions. The authors assumed that if a true depressive "style" existed, these should be negatively correlated. In the present sample, this correlation for depressed subjects (BDI > 9) was negative, $r(86) = -.01$, but nonsignificant. In RBI-traditional women (the more depressed of RBI sex role groups), the same correlation was positive, $r(94) = .08$, but nonsignificant. These findings demonstrated no support for the uniform process assumption within the attributional model of depression.
Self-Efficacy, Depression, and Sex Role

One-way analyses of variance indicated that there were no sex differences in self-efficacy, \( F(1,246) = .09, p = \text{n.s.} \), and no group differences in self-efficacy using the AWS as a criterion for group membership, \( F(3,198) = 1.38, p = \text{n.s.} \). However, examining RBI groups, a significant group difference was found, \( F(2,245) = 3.73, p < .05 \). Nontraditional women scored higher in self-efficacy than did traditional women. Nontraditional women also scored higher in self-efficacy than men, but this difference only approached statistical significance \( p = .07 \).

Correlational analyses revealed a significant negative correlation between BDI scores and self-efficacy in the overall sample, \( r(246) = -.39, p < .001 \). This negative relationship is in accordance with the theoretical expectations of Bandura (1984).

Since no AWS-group differences in depression were observed, one further analysis was carried out exploring the extent to which self-efficacy scores, as opposed to BDI scores, accounted for the variance in scores on the RBI. A stepwise regression was performed to investigate this question. While it was found that self-efficacy scores contributed significantly to the variation in RBI scores for women, \( F(1,154) = 8.39, p < .01 \), the addition of depression scores did not add significantly to the proportion of variance explained. The overall \( R^2 \) for the model was .05,
however, indicating that the model accounted for only 5% of the variance in RBI scores for women.
CHAPTER V

DISCUSSION

The purpose of this study was to examine the effect of gender role orientation upon attributional style and depression, as reflected by the major hypotheses. Also, a limited investigation of other aspects of Abramson's (1978) reformulated attributional model of depression (i.e. the presence of an overall depressive style in depressed subjects, the uniform process assumption, and "evenhandedness") was carried out. Thirdly, a preliminary examination of the impact (on depression and sex role scores) of a related cognitive variable, self-efficacy, was undertaken. Accordingly, this discussion is organized in three sections. The first deals with the implications of the findings for the five hypotheses. The remaining sections pertain to other relevant attributional findings, and the self-efficacy issue.

Gender Role, Depression, and Attributional Style

The present study did not find differences in level of depression between men and women, which did not support the "classic" epidemiological assertion (Weissman & Klerman, 1975) that there is a gender difference in the incidence and prevalence of depression. However, a difference in level of depression was found in the analyses of groups subdivided by
sex role orientation. RBI-traditional women were found to be more depressed than nontraditional women. As reviewed earlier, several authors (e.g., Baucom & Danker-Brown, 1979; Radloff & Monroe, 1978; Whitley, 1985) have argued that the socialization of stereotypically feminine individuals predisposes them to depression. Conversely, it has been suggested by the same authors that women who have not internalized the traditional female role are less vulnerable to depression. The results of the present analysis, while not demonstrated in AWS groups, was supportive of this perspective. (The issue of contradictory findings in AWS versus RBI groups is addressed in a subsequent discussion.)

Hypotheses 4, 4a, 5, and 5a examined differences in attributional style between the subject groups. The predictions followed from several premises. As mentioned earlier, Radloff and Monroe (1978) suggested that gender role orientation influences the development of learned helplessness, and subsequent vulnerability to depression. If the attributional theory of depression (Abramson et al., 1978) is a logically coherent extension of learned helplessness theory, then one might presumably observe differences in attributional style in the context of different gender roles. It was expected that traditional women, defined by both AWS and RBI scores, would show more internal, stable, and global attributions for negative life events than the other subject groups. With respect to
positive outcomes, AWS-traditional and RBI-traditional women were expected to demonstrate more external, unstable, and specific attributions than the other groups.

The evidence with respect to these hypotheses was mixed. The finding that AWS-nontraditional women made fewer internal attributions for negative events may be considered as supportive, by implication, of hypothesis 4a. That is, if traditional women are expected to demonstrate more of a depressive "style" by virtue of their sex role socialization, it may be expected that nontraditional women think causally in ways which may "inoculate" them from depression, or at least coexist with lower levels of depression (bearing in mind that no causal analyses were proffered herein). However, the AWS finding is not coincident with the RBI group finding (and overall sex effect analysis) that all women in the present sample made fewer internal attributions for negative events. That is, the current study suggests that this finding was a gender effect, and not an effect specific to those women affirming a nontraditional sex role orientation.

Another finding which would not be expected in this logical extension of traditional-role implications to the nontraditional women, was that AWS-nontraditional women attributed more stable causes for negative events than did nontraditional men. While the meaning of this result is not clear (and no hypotheses were offered regarding the
psychological implications of sex roles in men), one would be apt to suspect that nontraditional men may exhibit less "cognitive armour" against depression than their more stereotypical ("macho") counterparts. If so, this finding was unexpected for two reasons. Not only would nontraditional women, by implication of hypothesis 4, not be expected to score higher in negative-event stability, the difference is observed with respect to (perhaps) the least likely group of men.

Significantly higher scores for negative-event stability were also observed in RBI-traditional women, compared to men, which was the single finding in direct support of the hypothesis that traditional women have a depressive attributional style. However, not only was this in contradiction to the AWS finding, but analysis strictly by sex revealed that females overall were higher in stable attributions for negative events; once again not in support of the depressive attributional style as a discriminant feature of role traditionality.

For positive events, when all five events and the single most positive event were analyzed, RBI-traditional women were found to make more composite attributions for positive events than did men. At first mention, this would seem to support the view that nontraditional women are "cognitive extremists" who learn to make highly self-serving (Raps et al., 1982) attributions for positive events, which
may inoculate them from depression (i.e. preserve self-esteem). It is worth elaborating on a conceptual understanding of this position provided so elegantly by Kaplan (1986). She argued that feminine sex role socialization promotes the development of a self-structure in which goal-directedness is comprised primarily of the preservation of relational ties with others, for which the female feels responsible. Self-esteem, therefore, has an "internal" locus, i.e., is predicated on this internal experience of personal responsibility within relationship contexts, and only secondarily on attainment of external, material, and/or achievement-related ends). Kaplan further wrote that the masculine role, on the other hand, is outer-directed in the sense of promoting such achievement-related goals which only secondarily bring about love and respect in the relational sense. If Kaplan is correct, it is this external directedness, and willingness to accept the consequences of those (nonrelationally directed) actions as legitimate and primary sources for one's self-esteem, which may be reflected in the higher positive event attributions (and lower depression scores) in the RBI-nontraditionals (qua "more masculine").

Unfortunately, it was found that AWS-traditional women also made more composite attributions for positive events than did men in both sex role categories. RBI-traditional women also scored higher in internality (for all positive
events) and globality for their single most positive event. These results were contrary to the RBI composite finding. Furthermore, analysis of groups by gender alone confirmed that the RBI composite finding was also a gender effect, i.e., that women overall scored higher in composite attributions for positive events.

To summarize, in the present study, little understanding was gained, of how traditional and nontraditional women differ from each other with respect to patterns of attribution and depression. First, findings with respect to RBI groups were either not found in the corresponding AWS groups, or were contradictory. Sex role effects initially found in the causal dimensions of negative-internality and stability, and positive composite scores, were determined to be main effects of sex. An examination of these sex effects revealed a puzzling phenomenon, that men were atypically "unhealthy" in their causal styles, making more depressive causal attributions than women (although this was not concomitant with a finding of higher depression levels in men). Also, men were subdivided into traditional and nontraditional groups, in the AWS analyses, so as not to treat them as a homogeneous population (the usual pitfall of gender research with women), but little information was revealed regarding this distinction. The psychological implications of more or less stereotypically socialized males remains at issue.
The paucity of sex role findings with regard to men in the current study mirrors the fact that the implications of role socialization for well-being in men has not been widely researched; it virtually begs the need for richer and more thorough study of men's experience. Few tools for the assessment of role orientation in men exist (Beere, 1979; Robinson & Pollingstead, 1985). In this study, the AWS could merely distinguish liberal vs. conservative attitudes toward the female role. A liberal view of the female role does not necessarily coincide with a less stereotypical view of one's own gender role. There is also a need to develop a brief but thorough RBI-like instrument for the measurement of actual role behaviors affirmed by men. One might wonder, for example, if men depart further and further from the stereotypic male role, would they be observed to become more vulnerable to emotional distress and/or symptoms more frequently reported by women, e.g. depression?

Understanding the idiosyncratic ("less healthy") nature of the attributions made by men in this study is an equally complex issue. One possible explanation may be found in the characteristics of the age range in the college population used for this study. The mean age for both males and females was approximately 19, and one can view the typical college student, aged 17 to 21, as still struggling with the identity issues, and autonomy-dependence conflicts which characterize late adolescence. Some authors (e.g.
Douvan & Adelson, 1966) have suggested that during adolescence, girls in our culture may experience fewer and less stressful conflicts over the development of independence than boys. Douvan and Adelson suggested that girls may be more likely than boys to consider parental rules as fair, or lenient, and they are more likely to progress from an initial childhood acceptance of parental authority to a more independent identification with that authority, without an intervening phase of defiant assertion of their own values before moving closer to those of the parents. Mussen, Conger, and Kagan (1974) added that an adolescent girl's lesser degree of conflict with authority and within themselves may be due in part to the greater cultural reinforcement, in childhood, of dependency and compliance in girls, and of independence, assertiveness, and aggression in boys. Also, the emotional dependence on others which is so discouraged in the socialization of males, is a possible source of comfort in periods of distress, or turmoil, perhaps more easily utilized by the adolescent girl/young woman. If these propositions are plausible, then the more depressive cognitions observed in the present sample of college age men may be an index of greater overall distress and turmoil, which is an artifact of developmental phase, rather than a true gender effect. Also, the possible adaptive features of traditional role socialization in young women of this age, may have explained
the lack of "depression-proneness" found in this group of women, in the present study. Whatever the source, the atypical nature of the male attributional trends observed in this study, and the limitations of clinical research in a college population, necessarily engenders caution in generalizing the findings from the present research.

Other methodological/conceptual issues, and sampling considerations come into focus, as relevant to the lack of informative sex role findings, and contradictions (AWS versus RBI) observed in the current research. Attempts to study gender role orientation have, over the years, yielded a bewildering array of instruments and strategies with varying degrees of integrity (Beere, 1979). The task for this investigation was to arrive at some workable distinction between women whose socialization disposed them to a more, or less traditional notion of the appropriate female role. The literature, according to Beere, is characterized by three major strategies. One is to assess role preference by examining one or more behavioral indices, for example, occupational choice. This strategy is of obviously questionnable validity, given the present day freedom of occupational choice afforded most women and men. Also, the "status" of certain professions has changed; for example, Nursing, a traditional female occupation, has undergone a "professionalization" process which has quite probably changed the distribution and kind of people it
attracts. In general, it can be argued that behavioral indices, in the past, have been of limited reliability, validity, and usefulness because of the narrow range of information involved, and lack of consensus as to their applicability at a given time in social history. Another method for assessing traditional versus nontraditional role orientation has been the use of "trait" measures, such as an androgyny scale (e.g. Bem, 1974). Some researchers, including the major author of the AWS (Spence, Helmrich, & Stapp, 1973) have argued that androgyny as a psychological attribute, or trait, does not dictate what roles men and women prefer, adopt, or find tolerable. The empirical evidence (see Gilbert, 1981, for summary) seems to support this view. In addition, as was reviewed in an earlier discussion, critics (e.g. Locksley & Colton, 1978) have found major psychometric flaws in instruments utilized to measure androgyny as a trait. In accordance with these criticisms, the present author adopted the third major strategy, which is to assess role orientation as a set of prevailing attitudes endorsed by the individual (AWS), and also utilized a new and innovative instrument (RBI) which assessed a range of relevant sex role behaviors in women.

Robinson and Follingstead (1985) reported a moderate and significant correlation between their newly designed RBI and the AWS ($r = .56$). In the present study, the relationship between the two was found to be nonsignificant,
\( r (156) = .068, p = n.s. \), and in stark contrast to the correlation reported by Robinson and Follingstead in their convergent validity data. In addition, Tables 1 and 2 demonstrate that utilizing the AWS, only 25 women were classified in the traditional category, whereas RBI subdivisions yielded 93 traditional women!

The present author speculated on the differences between the two scales which might account for these observations. The AWS is the "classic" research instrument for measuring attitudes toward the female role. It is well-validated, current, and frequently used. Typically, the AWS is referred to as an assessment device for traditional versus "profeminist", or nontraditional orientation. However, its authors (Spence, Helmrich, & Stapp, 1973) have also been known to discuss the scale's interpretation on a conservative-liberal dimension, terms which are usually applied in the context of abstract, political ideation. Indeed, a perusal of AWS items reveals a number of rather global ideological statements. In many areas of psychology, differences between attitudes and behavior have been observed; this notion may have applicability for the gender-role construct as well. That is, women may hold "liberal" (in the sense of broad-based ideological) attitudes yet not be necessarily inclined to behave in perfect accordance with them in actual everyday role behaviors, for example in the home environment or in dating
The present sample was drawn from a population of predominantly white, Catholic individuals attending a Jesuit university. It may be suggested that women raised in Catholic families (who have also, for the most part been educated in Catholic schools) have, in general, been socialized with fairly traditional values regarding role behaviors and expectations. Examining the distribution of RBI scores in the present sample, the mean score for nontraditional women was identical to the mean score for the entire normative sample ($M = 182.5$, $SD = 34.8$) for Robinson and Follingstead (1985). As noted earlier, only 4% of the women in the current sample exceeded 200 on the RBI, the recommended cutoff score for assignment to a nontraditional sex role category. These observations support the speculation that the current sample of women is drawn from a rather "conservative" population overall. Comparisons were also made with AWS sample means in groups of women from other studies. Baucom and Sanders (1978) reported a mean AWS score in women of 50.76 (no $SD$ reported). Robinson and Follingstead (1985) reported single women scoring with a mean of 55.2, $SD = 11.8$. The sample mean for Spence, Helmrich, and Stapp (1973) was 50.26, $SD = 11.7$. The sample mean for women in the present study was 59.6, $SD = 4.90$. It did not appear, therefore, that women in the present sample espoused more traditional sex role attitudes. However, it
can be argued that female students reared in more traditional environments may have had to embrace more liberal attitudes regarding sex roles, in the context of arriving at a decision to pursue a college education. If so, it also seems plausible that a true "commitment" to a nontraditional role orientation (i.e. in a behavioral sense) may be more difficult for such women, given a lengthy history of more conservative social/familial environments. Perhaps this accounts for the far greater number of subjects classified as nontraditional using the AWS (N = 135), in comparison to the corresponding RBI group (N = 63). It also may help to explain the small correlation between the AWS and RBI, in this particular sample.

Also, although the average AWS score in this sample was generally higher than those reported in previous research (which, when viewed in light of similar RBI score comparisons, provided mixed evidence that this is a more conservative population), it was observed that the standard deviations for AWS-traditional and nontraditional females were about half the size of those reported in prior AWS research, and that the mean score for traditional women in the present sample (46.6) is quite close (1 SD) to the cutoff score. With such a narrow distribution of scores, and few extremely traditional women, these subject groups may have been too similar to have reflected actual differences between them, in the analyses of the major
hypotheses. These factors may explain the tendency in the present study, for sex role effects to have been observed in the analysis of the RBI groups, which were not observed in the corresponding AWS group analyses; the AWS may not have been a fine enough discriminator of role orientation, particularly in women.

In a prior study, which also yielded virtually no interpretable sex role effects, Latza (1986) proposed an alternative interpretation of the relevance of gender role to patterns of depression. The common report of nontraditional subjects, with respect to their future goals, was the hope of integrating home and family lives with careers. One could argue that aspects of nontraditionality are "depressogenic", because this orientation involves endorsing and/or attempting to adopt multiple role behaviors, a task which is not easily accomplished. In the present study, there was no evidence in support of a depressive pattern of symptoms or cognition in nontraditional women. Perhaps it is not role preference which is itself differentially depressogenic, but that women need to feel some sense of congruence between their roles as hoped for and envisioned, and as actually achieved. That is, there may be an affective component to the "formula"; if one does not feel effective or fulfilled through the exercise of one's (behavioral) role choice, then the role may become a predisposing factor in depression. As reviewed
earlier, Kingery (1985) demonstrated that housewives with nontraditional views of sex role felt more restricted and were more depressed than were traditional housewives. This finding suggests the need, in future research, to include the assessment of "fit" between espoused sex role beliefs and choices, and actual life possibilities/circumstances, and the affective consequences of this combination in the individual.

In summary, the measurement of gender role orientation was problematic in several respects, and alternative interpretations can account for the lack of informative group differences observed in the present study. Further exploration of the validity of the RBI is certainly warranted. Sampling women from a more heterogeneous age range in future research may help control for developmental phase-specific confounds. Also, the issue remains, of how one can best define and measure the construct of gender role. Is role orientation a set of behaviors, traits, or attitudes? It is plausible to argue that it involves aspects of all three, as well as an affective component. Future research should include attempts at multidimensional and multimethod assessment of gender role constructs, to better address the questions at hand.

Other Findings: Attributional Style and Depression

In the present study, no group differences were found between depressed and nondepressed subjects in composite
attributions for negative, or positive events. In the reformulated model of Abramson et al. (1978), it is predicted that depressed persons make more internal, stable, and global attributions for negative events, than nondepressed persons. This was not supported by the present findings. The model further proposes that attributional style is a uniform pathogenic process; depressed subjects should be observed to make (conversely) more external, unstable, and specific attributions for positive events than nondepressed subjects. This was also not found in the present research. The correlation between negative event composite scores and positive event scores, expected to be negative in depressed subjects, was near zero and nonsignificant, which also did not support the uniform process assumption in Abramson et al.'s model.

Investigation of Raps et al.'s (1982) proposition that depressed subjects are more evenhanded in their attributions (have less of a self-serving bias) did not reveal evidence in support of this contention. The finding that RBI-nontraditionals were less evenhanded than males seemed to suggest that there may be a somewhat distinctive (self-serving) attributional style in this group of subjects (who were less depressed than RBI-traditional women). However, recall that the tendency for these women to make higher composite attributions for positive events was demonstrated to be a main effect of gender. In short, the
present study demonstrated virtually no evidence that depressed people have a distinctive style of causal thinking which is concomitant with, and/or may predispose them toward depression. Apart from being disconfirmatory of the attributional theory of depression, the present findings suggest that attributional theory may be limited in its ability to elucidate the nature and source of differential patterns of cognition and depression among men and women.

However, this conclusion must be qualified by an examination of methodological and conceptual problems endemic to the assessment of attributional style carried out in the present study. In their examination of factors responsible for inconsistent findings in support of the reformulated model of depression, Peterson, Villanova, and Raps (1985) pointed out that unknown variance may be introduced when real life events are sampled, i.e., because events sampled are different across subjects. For Gong-Guy and Hammen (1980), one of the justifications for devising the real life event strategy was that the ASQ items appeared to have an inordinate emphasis on success or failure in achievement situations. Recall that the attributional research is steeped in a tradition of examining subjects' cognitions regarding success or failure in laboratory task situations (e.g. Klein, Fencil-Morse, & Seligman, 1976). Hammen and colleagues have presented the provocative suggestion that different types of causal attributions may
arise from different types of events, i.e., that the positive-negative distinction is simply not conceptually rich enough to test the model. Unfortunately, the open-ended AQ, and in general, efforts to analyze actual life events by these investigators, have not thus far attempted to assess multiple categories of positive and negative events. As an example of the problems engendered; often subjects perceive as their most stressful negative event, an event such as the death of a significant other. Even though a legitimate negative event, it "pulls" for certain attributions; unless the subject is a felon, external and specific causality is necessarily ascribed. One extension of the present research might have been to assess what types of events are reported with what frequency in the open-ended AQ strategy. Future research might include a strategy for subdividing events into classes; for example, the negative event dimension might include loss, (victim) trauma, illness, interpersonal strife, and failure in achievement situations. Furthermore, it seems that before judgments can be made concerning the pathogenic nature of causal attributions, some subsequent methodology should be implemented to examine types of attributions which are "typically" elicited (in affectively non-disturbed individuals) by specific classes of events. As a persuasive illustration, evidence has emerged that one causal dimension, internality, may or may not be depressogenic in
the context of a certain class of negative event. Janoff-Bulman (1979) and later Miller and Porter (1983) have shown that for victims of violent crime, internalizing blame may be an adaptive coping response which helps the traumatized person to restore a sense of control and mastery to his or her life. In any case, research efforts directed at developing a well-validated and more complex assessment strategy for causal cognitions about life events are needed. Innovative strategies, such as that of Zautra et al.'s (1985) combined assessment of hypothetical events (using the ASQ) and longitudinal "diaries" of real life events, show promise.

Other issues with regard to the assessment of attributional style and depression remain integral to future research efforts. In the majority of research, measures and methodologies have not permitted causal inferences regarding attributions as cognitive determinants of depression. Although one might speculate, for example, that a nondepressive's attributional style may "inoculate" him or her from depressive experience, more sophisticated research designs are needed to test such worthwhile propositions. In addition, the debate surrounding the conceptualization and assessment of depression wages on.

Depue and Monroe (1978) summarized the abundant criticisms surrounding the classification and description of depressed subjects in attribution research. A particular
target for this criticism is the use of the BDI as a solitary diagnostic tool, as was done in the present study. For example, the BDI has been criticized because it is a self report measure, rather than a tool for "clinical observation" of depressive phenomena. The theoretical question of what subtype or subtypes of depression are being modeled by attribution theory also remains a salient issue. Seligman (1978) agreed with the essential difficulties of using the BDI, and many other investigators have begun to incorporate multiple criteria for the determination of the presence of depression.

In terms of the more theoretical issue, it has been suggested (e.g., Depue & Monroe, 1978) that since more robust findings have emerged when clinical populations are studied, the experience of "mildly" depressed individuals (such as those often found in college populations) is not being modeled by attribution theory. Furthermore, it is warned, findings from such samples should not be generalized to clinically depressed populations. Seligman (1978) has countered with the argument that mild depression need not be regarded as an analog to other "more real" syndromes, but is in itself a disorder worth study. Seligman's theoretical justification of the "symptomatic" approach (reviewed by Persons & Rao, 1985) was discussed in the earlier literature review, as the basis for utilizing this approach in the present study. In addition, evidence which supported the
attributional model of depression has been reported among mildly depressed college students (Metalsky et al., 1982). Nevertheless, these issues remain at the core of debate between Seligman and his critics. Johnson, Petzel, and Sperduto (1983), as reviewed earlier, commented extensively on the "perils" of sampling from homogeneous college populations, where there are relatively few clinically depressed subjects. In the present study, however, 90 subjects (of 249) scored 10 or higher on the BDI, which is quite unusual for the population of Loyolans (Johnson; personal communication). Nevertheless, for the future, the use of a more heterogeneous sample may be a more fruitful approach, particularly with regard to generalizability to other, dissimilar populations.

Self-Efficacy

If the relevance of attributional style to the gender issue in depression remains unclear from the present study, an alternative cognitive variable, self-efficacy, yielded some thought-provoking findings. First, the expected (negative) relationship was found between self-efficacy and depression. Secondly, in examining the relationship between self-efficacy, gender, and gender role, there were no significant differences found between males and females. However, RBI-nontraditional women scored higher in self-efficacy than RBI-traditional women. Radloff and Monroe (1978) suggested that the sense of competency and expectancy
of effective problem solving, which are core aspects of self-efficacy, are precisely the behaviors discouraged through traditional socialization into the female role. Whitley (1985) argued that it is likely to be the "agentic", instrumental feature of masculine role socialization, which contributes to a greater tendency toward a sense of personal efficacy, which may contribute to the well-being of the nontraditionally reared (qua "more masculine") female. Recall that in the present sample, RBI-nontraditional women were found to be significantly less depressed than their traditional counterparts. A stepwise regression procedure examined the relative capacity for self-efficacy scores and depression scores to account for the variation observed in RBI scores in women. Of the 5% "explained" by SES and BDI scores, virtually no residual variance was left after SES was removed from the model. This supported the speculation that agentic, instrumental capacities (as are represented in the construct of self-efficacy) may be a significant component to gender role orientation, whose implications for affective well-being need to be further explored in future research. Two issues limit the interpretability of this finding; first, that self-efficacy and depression are not independent of each other. Secondly, the regression model, although significant, accounted for relatively little of the variance in RBI scores in practical terms, which most likely reflects the overall complexity and multiple determinism of
role orientation.
SUMMARY

The original purpose of the present study was to elucidate the nature of the relationship between gender, gender role, and depression, in the context of the attributional model of depression. There was evidence found that nontraditional women may be more depressed than traditional women. It was not clear, however, what factors accounted for this observed sex role difference. The evidence for differences in causal thinking styles were somewhat contradictory, and in general inconclusive, with respect to the establishment of the presence of a depressive attributional style in subgroups of women. Sex role effects observed for negative events emerged as gender effects, with further scrutiny. Also, while RBI-nontraditional women appeared at the outset to have an extreme "self-serving" attributional style with respect to positive events, this effect was found with respect to males, and not with respect to the (more depressed) RBI-traditional women. Further examination also revealed that the group difference was also a gender effect; i.e., that men exhibited a more depressive pattern than women.

In the study as a whole, men did not exhibit the patterns of cognition which might be expected from the "healthier" (epidemiologically speaking) gender. The somewhat atypical nature of the attributional patterns in the current sample posed a challenge not only to the
generalizability of the current findings, but also to further understanding of the male experience, and the psychological consequences of sex role (and departure from it) for male well-being. Other methodological and conceptual considerations for the assessment of the construct of sex role were discussed. The combination of these considerations, with the idiosyncratic nature of the Catholic college population utilized, engendered caution with respect to the current findings, as well as directions for methodological refinement in the study of gender role issues. In addition to the study of gender issues, cognitive style, and depression, the present study investigated the basic tenets of the attributional model of depression, finding no support for a depressive attributional style in depressed subjects, nor evidence of a single underlying pathogenic process. Depressed subjects, as well as the subjects in the most depressed sex role group (RBI-traditionals) were not found to be more evenhanded than other, nondepressed subjects, or other role groups, respectively. The question was raised as to the adequacy of the attributional model to contribute to the understanding of depressive phenomena, or of gender issues in depression. However, methodological considerations in the assessment of actual life events, and in assessment of depression, are possible contributors (and thereby qualifiers) of the disconfirmatory evidence.
The findings from the examination of self-efficacy strongly suggested that to understand the relationship of gender role to affective experience, one must proceed further, in future research efforts, to more varied and complex cognitive dimensions. For example, the finding that RBI-nontraditional women (who were less depressed than their traditional counterparts) were higher in self-efficacy suggests that the departure from the stereotypic female role may carry with it an infusion, developmentally, of a greater internal sense of competence, instrumentality, and perhaps more varied "options" (internally experienced) for dealing with the events of everyday life.

Clearly, the most important "discoveries", from the present study, were not in the domain of statistical significance, but rather in the numerous avenues uncovered for theoretical and methodological refinement in future research. If "traveled", many of these may considerably enrich research in cognitive models of depression, as well as in the psychology of gender differences.
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Robinson Behavioral Inventory (RBI)
Form A

For the first ten questions use the following scale:
0 = will definitely not do so
1 = extremely unlikely
3 = very unlikely
4 = moderately unlikely
5 = somewhat likely
6 = moderately likely
7 = very likely
8 = extremely likely
9 = will definitely do so

*1. If trying to get your own way, how likely are you to use tears with a person of the opposite sex within the next year at least once?
2. How likely are you to pay 50% or more of the expenses the first time you go out with a person of the opposite sex during the next year?
*3. How likely are you to stay home from an activity (e.g. party or concert) that you want to go to if you don't have a date during the next year?
4. How likely are you, within the next year, to ask someone to refer to you as a woman/man if they refer to you as a girl/boy?
5. How likely are you to read a book on the new roles for women (e.g. Free and Female, The Feminine Mystique) during the next year?
*6. When going out with a person of the opposite sex during the next year, how likely is it that the other person will always drive?
7. How likely are you to be the first to engage in genital touching with a date during the next year?
*8. When with a person of the opposite sex during the next year, how likely is it that he/she will regularly make the minor decisions (e.g. where to go on an evening out)?
9. How likely are you to eat lunch or dinner alone in a restaurant during the next year?
*10. How likely are you to accept a date with a person of the opposite sex and cancel plans you had already made with friends of the same sex during the next year?

For the next nine questions, use the following scale:
0 = never
1 = once
2 = twice
3 = 3 times
4 = 4 times
5 = 5 times
6= 6 times  
7= 7 times  
8= 8 times  
9= 9 times or more  

*11. How frequently have you gone out with a person of the opposite sex that you didn't like very much because you didn't know how to say no when asked, during the past year?  
12. How frequently have you read Ms. or New Woman magazine in the past year?  
*13. How frequently during the past year have you stayed home from an activity that you wanted to attend because you didn't have a date?  
14. How many books have you read on the new roles for women (e.g. Free and Female, The Feminine Mystique) during the past year?  
*15. How frequently have you waited in the car for a person of the opposite sex to open the door for you in the past year?  
*16. How frequently have you pretended to know less than you really knew to protect the ego of a person of the opposite sex during the past year?  
17. How frequently during the past year have you gone out in the evening with friends of the same sex?  
18. How many meetings have you attended of a feminist-oriented group (e.g. church group on the status of women, formal discussions of sex roles, N.O.W., consciousness raising) during the past year?  
*19. In the past year, how frequently have you decided to keep a strong opinion to yourself because you were talking to a person of the opposite sex?  

For the next six questions, use the following scale:  
0= 0%  
1= 10%  
2= 20%  
3= 30%  
4= 40%  
5= 50%  
6= 60%  
7= 70%  
8= 80%  
9= 90% or more  

20. What percent of the time have you, rather than your partner, been the first to engage in genital touching during the past year?  
21. What percent of the time have you paid 50% or more of the expenses the first time you went out with a person of the opposite sex during the past year?  
*22. In trying to get your way, what percent of the time have you used tears with a person of the opposite sex during the past year?
23. What percent of the meals you have eaten in restaurants during the past year have you eaten alone?
24. When with a person of the opposite sex during the past year, what percent of the time has he/she made the minor decisions (e.g. where to go on an evening out)?
25. When you have felt angry at a person of the opposite sex during the past year, what percent of the time have you expressed it?

For the next nine questions, use the following scale:
0 = will definitely not do so
1 = extremely unlikely
2 = very unlikely
3 = moderately unlikely
4 = somewhat unlikely
5 = somewhat likely
6 = moderately likely
7 = very likely
8 = extremely likely
9 = will definitely do so

26. How likely are you to ask one or more people of the opposite sex to go out with you in the evening or on a weekend within the next year?
27. How likely are you to wait in the car for a person of the opposite sex to open the door for you during the next year?
28. How likely are you to pretend to know less than you really know to protect the ego of the person of the opposite sex within the next year?
29. How likely are you to agree to sexual intercourse that you don't want to engage in if pressured by a person of the opposite sex?
30. How likely are you to keep a strong opinion to yourself if you are talking to a person of the opposite sex within the next year?
31. How likely are you to express it if you feel angry at a person of the opposite sex within the next year?
32. How likely are you to read Ms. or New Woman magazine in the next year?
33. How likely are you to go out with a person of the opposite sex that you don't like very much because you don't know how to say no, when asked during the next year?
34. How likely are you to attend a meeting of a feminist-oriented group (e.g. church sponsored program on the status of women, formal discussion on sex roles, N.O.W., consciousness raising) within the next year?

* Indicates reverse worded items
APPENDIX B
Self-Efficacy Questionnaire (SES)

Instructions: This questionnaire is a series of statements about your personal attitudes and traits. Each statement represents a commonly held belief. Read each statement and decide to what extent it describes you. You will probably agree with some of the statements and disagree with others. Please indicate your own personal feelings about each statement below by marking the number which best describes your attitude or feeling. Please be very truthful and describe yourself as you really are, not as you would like to be.

Mark:
1= If you DISAGREE STRONGLY with the statement
2= If you DISAGREE MODERATELY with the statement
3= If you neither agree nor disagree with the statement
4= If you AGREE MODERATELY with the statement
5= If you AGREE STRONGLY with the statement

1. I like to grow house plants. 1 2 3 4 5

*2. When I make plans, I am certain I can make them work. 1 2 3 4 5

*3. One of my problems is that I cannot get down to work when I should. 1 2 3 4 5

*4. If I can't do a job the first time, I keep trying until I can. 1 2 3 4 5

5. Heredity plays the major role in determining one's personality. 1 2 3 4 5

6. It is difficult for me to make new friends. 1 2 3 4 5

*7. When I set important goals for myself, I rarely achieve them. 1 2 3 4 5

*8. I give up on things before completing them. 1 2 3 4 5

9. I like to cook. 1 2 3 4 5

10. If I see someone I would like to meet, I go to that person instead of waiting for him or
her to come to me.

*11. I avoid facing difficulties.  1 2 3 4 5
*12. If something looks too complicated, I will not even bother to try it.

13. There is some good in everyone.  1 2 3 4 5
14. If I meet someone interesting who it is very hard to make friends with, I'll soon stop trying to make friends with that person.

*15. When I have something unpleasant to do, I stick to it until I finish it.
*16. When I decide to do something I go right to work on it.

17. I like science.  1 2 3 4 5
*18. When trying to learn something new, I won't give up if I am not initially successful.

19. When I'm trying to become friends with someone who seems uninterested at first, I don't give up very easily.

*20. When unexpected problems occur, I don't handle them well.

21. If I were an artist, I would draw children.

*22. I avoid trying to learn new things when they look too difficult for me.
*23. Failure just makes me try harder.

24. I do not handle myself well in social gatherings.

25. I very much like to ride horses.  1 2 3 4 5
I feel insecure about my ability to do things.

I am a self-reliant person.

I have acquired my friends through my personal ability at making friends.

I give up easily.

I do not seem capable of dealing with most problems that come up in my life.

* General Self-Efficacy subscale
APPENDIX C
Data Sheet

Race: ____________________       Code: ________
Religion: ________________      Age: ________
Marital status: ____________     Sex: ________
College major: _______________

Career goals, if any: ____________________________________________

If undecided, please state, in a few sentences, what general activities you would like to see yourself doing 10 years from now.

_________________________________________________________________

_________________________________________________________________

_________________________________________________________________

_________________________________________________________________

_________________________________________________________________

What are your current hobbies? ________________________________________

_________________________________________________________________

_________________________________________________________________

_________________________________________________________________

If you are married, or engaged in a significant intimate relationship, what are the present occupational circumstances, and future life goals of your partner? Answer in a sentence or two, for example: My girlfriend is an English major and wishes to be a novelist and a poet. She would also like to settle in the country and raise a family.

_________________________________________________________________

_________________________________________________________________

_________________________________________________________________

If you are not currently in an intimate relationship, what might be the life goals of an "ideal" partner?

_________________________________________________________________

_________________________________________________________________

What kind of high school did you attend? (check all that apply)

____ Public
____ Private
____ Co-ed
____ Religious-parochial
____ All female
____ All male
APPROVAL SHEET

The dissertation submitted by Karen M. Latza has been read and approved by the following committee:

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The final copies have been examined by the director of the dissertation and the signature which appears below verifies the fact that any necessary changes have been incorporated and that the dissertation is now given final approval by the Committee with reference to content and form.

The dissertation is therefore accepted in partial fulfillment of the requirements for the degree of Doctor of Philosophy.

9-26-88
Date

[Signature]
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