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THE RELATIONSHIP BETWEEN COLLEGE STUDENTS'
AGES AT TIME OF PARENTS' DIVORCE AND THE
MATURITY OF THEIR DEFENSE MECHANISMS

presented by

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THE RELATIONSHIP BETWEEN COLLEGE STUDENTS' AGES AT TIME OF PARENTS' DIVORCE AND THE MATURITY OF THEIR DEFENSE MECHANISMS

Ву

Jeffrey R. Zinbarg

A THESIS

Submitted to
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ABSTRACT

THE RELATIONSHIP BETWEEN COLLEGE STUDENTS' AGES
AT TIME OF PARENTS' DIVORCE AND THE MATURITY
OF THEIR DEFENSE MECHANISMS

By

Jeffrey R. Zinbarg

This study examined how the age at which their parents' divorce first occurs relates to the development of defense mechanisms assessed in late adolescents. Since the literature on the effects of divorce indicates sex differences, this study used gender as a possible moderator variable.

Analyses of relationships between Defense Mechanism
Inventory scores and demographic and other life history
information provided by 1341 college students indicated that
late adolescent males whose parents divorced as they were
entering the latency period had lower scores on a measure of
defense maturity than did late adolescent males whose
parents divorced after this developmental period. On the
other hand, the development of defenses for late adolescent
females was independent of the timing of divorce.
Limitations of methodology were discussed and directions for
future research are suggested.

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INTRODUCTION

The concept of defense mechanisms is central to psychodynamic theory and therapy (Plutchik, 1995). Psychodynamic theory postulates that a person is caught between two opposing forces, one emanating from within the individual (i.e., drives) and the other from society (i.e., the rules and regulations of communal living). Each force is striving to be expressed, and the conflicting aims of these two forces could be experienced by the person as anxiety, or other emotions such as shame or quilt. Defense mechanisms work toward bringing about a compromise between the two forces in conflict and serve to avoid or reduce the experienced emotions. Which defenses are used and when they are used has been a basis for understanding both personality and psychopathological development. As such, it is important to understand how defense mechanisms develop, and what experiences may interfere with their development.

Sigmund Freud suggested that defense mechanisms are shaped by the early family environment (1935a). He theorized that adult behavior can be explained by the course of psychosexual development in early childhood. Freud outlined five stages of psychosexual development through which all people may successfully (or unsuccessfully) pass: oral,

anal, phallic, latency, and genital (1935b). In each stage conflict can be evoked with the child's expression (and parents' inhibition) of instinctual drives. If the child's needs relevant to the psychosexual stage are frustrated or overindulged by the parents, the child's defenses are elicited to alleviate the ensuing anxiety. For example, during the phallic stage, a child unconsciously wishes to possess his or her opposite-sexed parent and at the same time to eliminate the same-sexed parent. On the other hand, the child fears retaliation from the same-sexed parent and experiences conflict. Freud referred to this as the Oedipal conflict. Successful resolution of this conflict is said to occur when the child develops the defense mechanisms of repression and identification. The child represses the desire for the opposite-sexed parent and identifies with the same-sexed parent.

Weinstock (1967), among many others, recommended that systematic studies were needed to test and clarify Freud's suggestion that defense mechanisms are shaped by the early family environment. However, there still is a shortage of empirical research on the childhood antecedents of defense mechanisms. In attempting to contribute to this literature, the present investigation focused on the relationship between the childhood experience of divorce and defense mechanisms.

Defenses are assumed to develop along a continuum with

the least mature defenses that emerge early in life and more mature defenses that emerge later (Cramer, 1987). Thus, this study examined how the age at which divorce (potentially a very stressful event) first occurs relates to the development of defense mechanisms. In addition, the literature on the effects of divorce indicates sex differences (Zaslow, 1989). Pre-adolescent boys whose parents divorced display more negative behaviors than pre-adolescent girls. Therefore, this study used gender as a moderator variable when examining how the age at the time of the divorce relates to the development of defense mechanisms.

REVIEW OF THE LITERATURE

Defense Mechanisms: Historical Influences

Defense mechanisms are thought to be unconscious processes that help protect a person from the anxiety or other emotions such as shame or guilt resulting from intrapsychic conflict. This concept originated with Sigmund Freud, and was discussed extensively for the first time in his 1894 paper The neuro-psychoses of defence. The idea that the mind protects itself against unpleasant ideas or affects is considered by some to be Freud's "most original contribution to human psychology" (Vaillant, 1992, p.3), and much of psychoanalysis can be viewed as elaboration and clarification of this idea.

The roots of psychoanalysis and the concept of defense

mechanisms have been traced by Havens (1987) to Charcot and Janet. These seminal ideas are briefly summarized here. Charcot attempted to outline the connection between epilepsy, hysteria, and hypnosis. He noticed the sequence of experiencing a trauma, forgetting about it, and then having symptoms form. Janet refined Charcot's observation. Using hypnosis to remove symptoms of hysteria, Janet concluded that the pathology was due to the dissociation between emotion and cognition. For both Charcot and Janet the explanation behind dissociation lay in hereditary weakness. It was Sigmund Freud (1894) who stated that dissociation could be explained psychologically. From a Freudian perspective dissociation is understood as a defense that mediates conflict between instinctual gratification and the demands of society, and that protects the person from negative emotions.

In his early theorizing, Freud felt that all defenses were subsumed under the mechanism of repression and were considered "the cornerstone on which the whole structure of psychoanalysis rests" (S. Freud, 1914, p.16). Later, Freud altered his thinking about defense mechanisms to "distinguish the more general notion of 'defence' from 'repression.' Repression is only one of the mechanisms which defence makes use of" (S. Freud, 1926, p.114). Anna Freud expanded on different types of defense mechanisms. In The eqo and the mechanisms of defence (1946) she identifies and

defines repression, regression, reaction formation, denial, isolation, undoing, projection, identification, intellectualization, compensation, sublimation, turning against self, and reversal.

Sigmund Freud's insights about defenses were based on his investigation of neuroses. He observed that defenses not only protect a person from unpleasant affects or ideas, but that the use of defenses results in symptom formation (1894; 1926). Because symptoms are sequelae of defenses, Sigmund Freud felt that the use of defenses is a pathogenic process (1916). Anna Freud (1946) extended her father's concept of defense mechanisms to include their use as normal adaptations to stressful situations. Anna Freud (1965) considered defenses adaptive if they were used in balance, in moderation, and were age appropriate.

The Development of Defenses

Anna Freud (1946) suggested that defenses might be ordered along a developmental continuum in which different defenses emerge at different times in a child's life.

Vaillant (1971; 1977), following Anna Freud's suggestion, proposed that defenses could be characterized along a hierarchical continuum with some defenses being less mature and other defenses being more mature.

Vaillant's hierarchy (1971; 1977) classifies the defenses into four categories presented in ascending order: "narcissistic", "immature", "neurotic", and "mature." The

"narcissistic" defenses (e.g., denial, distortion) alter perceptions of external reality, while the "immature" defenses (e.g., projection, passive-aggressive behavior) alter the experience of distress brought about either by the threat of intimacy or the threat of losing intimacy. In the "neurotic" category (e.g., repression, displacement, reaction formation) defenses are characterized by altering private feelings. Finally, mature defenses (e.g., suppression, sublimation) integrate conscience, reality, relationships, and private feelings. The distinctions among the levels of defenses can be seen more clearly through the use of an example based on Vaillant's "glossary" of defenses (1971, pp.116-118). Suppose, a loved one was dying. A person in denial would insist that the loved one was healthy. The person being passive-aggressive would not visit. The repressed person would visit, but would not feel sad. Lastly, the person using suppression consciously decides to postpone feeling sad, says "I'll think about it tomorrow," and attempts to comfort the dying loved one.

Cramer (1987), in a cross-sectional study, demonstrated empirically that the defense mechanisms may develop along a continuum with the least mature defenses emerging early in life and the more mature defenses emerging later in development. She assessed the defense mechanisms of preschool through late adolescent aged children, and she found that denial was used most frequently by the youngest

children and decreased steadily thereafter. Projection was most frequently employed in the elementary school age groups, whereas identification increased during adolescence.

According to Pine (1986), trauma impairs the maturation of defenses. He asserts that because the young child could be overwhelmed by stimulation (including excitement or ugly faces, screaming voices and stinging hands) and may not have an opportunity to let his or her guard down, the child clings to early formed defenses.

The findings of Tauschke, Merskey, and Helmes (1990) and Schmidt, Stone, Tiller, and Treasure (1993) support Pine's assertion. Tauschke et al. (1990) examined the relationship between memories of parent-child relationships and adult defense mechanisms. They found that adults who believed they were not cared for as children tended to use less mature defenses such as projection and identification with the aggressor.

Schmidt et al. (1993) examined whether there was a link between childhood adversity and adult defense style. They compared the defense style of patients with anorexia nervosa with that of patients with bulimia nervosa and of female controls. Schmidt et al. found that bulimia nervosa patients used less mature defenses than either anorexics or controls. They found that the difference in defense styles was due to bulimics having experienced more early childhood adversity than either anorexics or controls. In addition, early

childhood physical abuse predicted the use of less mature defenses only in the bulimia nervosa patients.

Approaches to the Measurement of Defense Mechanisms

Methods for measuring defenses have used either projective tests or self-report instruments. The former include observation of free play in children and the administration of various projective tests including the Children's Apperception Test, the Rorschach, and the Thematic Apperception Test (Bellak, 1975; Cooper, Perry, and Arnow, 1988; Cramer, 1987; Haworth, 1963). Because defenses are construed to operate unconsciously, defense mechanisms can only be inferred. Thus, they are more likely to be revealed in a large unrestricted sample of behavior which can be obtained via the use of projective tests. On the other hand, having extensive open ended responses may make it difficult for independent observers to have reliable ratings or agree which defense was used. Furthermore, the logistics of administering and scoring a projective test is unwieldy and time consuming with a large sample of subjects.

Self-report instruments do not require clinical judgment of independent observers, and are easy to administer to large numbers of subjects. However, self-report measures tend to examine only conscious processes.

There are currently two self-report instruments, the Defense Mechanism Inventory (DMI; Glesser and Ihilevich, 1969) and the Defense Style Questionnaire (DSQ; Bond, Gardner,

Christian, and Sigal, 1983).

The DMI asks respondents to recognize past behaviors and thus, is an indirect measure of defensive functioning. Further, a review of the DMI led Cramer (1988) to the opinion that the DMI scales can be conceptualized as representing a continuum of defense maturity since one of the scales (Principalization) includes mature defenses, such as intellectualization, and other scales, such as Projection or Turning against the Object, include immature defenses.

The Effects of Divorce on Children

The divorce rate in the United States has been rising steadily since the turn of the century with a significant increase in the rate of divorce taking place in the early 1970s (Counts, 1991). In reviewing statistics compiled by various investigators, Counts reported that 50% of new marriages ended in divorce during the 1970s. Further, Glick (1979) pointed out that, during that period in the 1970s, close to 60 percent of couples who obtained a divorce had children under 18 years of age. These findings are relevant for the present investigation because the subjects in this study would have been young children during the 1970s.

Divorce has often been associated with adjustment problems in children (Camera and Resnick, 1989; Emery, 1988; Hetherington, Cox, and Cox, 1985; Kelly, 1993; Wallerstein, 1991; Wallerstein, 1987; Wallerstein and Kelly, 1976).

Children of divorce in comparison to children in never-

divorced families exhibit more aggressive, impulsive, and antisocial behaviors (Guidubaldi and Perry, 1985;
Hetherington, Cox, and Cox, 1985; Peterson and Zill, 1986), have more difficulties in their peer relationships (Guidubaldi and Perry, 1985; Hetherington, Cox, and Cox, 1985;), and are less compliant with authority figures (Kelly, 1993).

Age of the Child

Some of the effects of divorce appear to be mediated by the child's age at the time of the divorce. Kelly and Wallerstein (1976) and Wallerstein and Kelly (1976) assessed the effects of divorce among several different age groups. Children between 7- and 10-years old were clearly distinguishable from the 5- and 6- year olds. The 7- to 10year olds showed more anger than the 5- and 6-year olds. Also, the 7- to 10-year olds divided into two groups: the early latency group (7-8 years old) and the latter latency group (9-10 years old). Most noticeable was the overwhelming sense of sadness of the early latency group. Based on clinical observation, the authors report that these children were aware of their feelings, but did not seem to have any defenses against their sadness. The 5- and 6-year olds used denial or fantasy to escape their suffering. Whereas the latter latency group used avoidance, bravado, and activity to cope with their feelings of loss and suffering.

In a 10-year follow up study, Wallerstein (1987)

observed that the children from the early latency group continued to suffer more than the other groups. She noticed that ten years later these children were unhappy about their current relationships and worried about future ones.

However, Wallerstein's studies suffer from methodological problems. She did not use objective measures of outcome, and failed to include any kind of comparison group. Thus, it is unclear both whether the suffering of latency aged children is a typical developmental difference, or whether latency aged children of divorce suffer more than children from intact families. Palosaari and Aro (1994) addressed these concerns in their study on the significance of a child's age at the time of divorce on later well-being. They compared the prevalence of depression in young adults from nondivorced and divorced families. Those who had experienced divorce were divided into three groups as to when divorce took place: preschool age, latency, and adolescence. The Beck Depression Inventory was used to assess depression. They found that depression was significantly more common young adults from divorced families than from nondivorced families. Furthermore, they found that for males depression was significantly more prevalent among those who had experienced divorce in latency as compared with those who had experienced it before school age or in adolescence. However, for girls depression was independent of the timing of parental divorce.

Sex Differences

In addition to Palosaari and Aro (1994) a number of researchers have found evidence indicating that parental divorce affects boys and girls differently. Wallerstein (1987) reported in a ten-year follow up study of latency aged children of divorce that the boys were less psychologically and socially well-adjusted than the girls. Hetherington, Cox, and Cox (1978) found that children of divorced parents exhibit more negative behavior than children of intact families, and that this behavior was more severe and prolonged for pre-adolescent boys than for pre-adolescent girls. Pre-adolescent children of divorce, particularly boys, in comparison to children in nondivorced families exhibit more aggressive, impulsive, and antisocial behaviors (Guidubaldi and Perry, 1985; Hetherington, Cox, and Cox, 1985; Peterson and Zill, 1986).

While divorce seems to have a greater effect on boys during pre-adolescence, divorce seems to have a greater effect on girls during adolescence. Using observational measures, Hetherington (1972) found that compared to 13-17 year-old girls from intact families and families in which the fathers were deceased, 13-17 year-old girls from divorced homes were more forward and attention seeking with males, had lower self-esteem, and reported more sexual activity. Kalter, Riemer, Brickman, and Chen (1985) observed that there is a "time bomb-like reaction" (p.538) in girls

whose parents divorced in the girls' early childhood. They state that it would be unlikely to observe difficulties in daughters of divorce in the latency years as mothers and daughters are expected to be close during this period. One would not anticipate problems until adolescence, which is a time of individuation and separation. One should note that the criterion variable of interest in the time bomb reaction is behavior and not defense mechanisms.

HYPOTHESIS

Defense mechanisms develop along a continuum with the least mature defenses emerging early in life while the more mature defenses emerge later in life. Trauma may impair the maturation of defense mechanisms. From a psychodynamic perspective, parental divorce during the latency period may be more significant for boys in terms of defense mechanisms than for girls. That is because in a divorce it is usually the father who leaves the household (U.S. Bureau of the Census, 1993). Since the oedipal phase of development is thought to be responsible for initiating identity formation, the less available the father is the less able the boy will be to identify with him. Thus, the boy will need to use less mature defenses in order to deal with the anxiety of the oedipal situation. On the other hand, girls are more likely to remain in contact with their mothers, their primary identification figure. At adolescence, the time at which

girls individuate and separate from their identification figure, their defense mechanisms are further developed. The research literature on the effects of divorce supports the idea that divorce has a greater effect on latency age boys than on latency age girls. Thus, it was expected that late adolescent males whose parents divorced as they were entering the latency years would have lower levels of defense maturity than other late adolescent males; development of defenses for females would be independent of the timing of parental divorce.

METHOD

Subjects and Procedure

Students enrolled in courses through the College of Social Science Integrative Studies program and in introductory psychology classes completed questionnaires regarding defensive styles as well as other characteristics not relevant to this study. They also answered a demographic questionnaire that requested information about family structure and memories of family interactions. The students were asked to first complete the questionnaire regarding defensive styles then to complete the demographic questionnaire. The testing sessions were conducted in large groups in the classrooms, and were monitored by a first or second year graduate student.

Subjects in this study consisted of 1,341 Michigan

State University students who provided complete information on the questionnaires they were asked to complete. Table 1 presents the demographic characteristics of the subjects whose data were analyzed; approximately 32% of the sample was male (N=433) and 68% of the sample was female (N=908); 71% of the participants were 17- to 18- years old (N=951) and 29% of the participants were 19-years of age or older (N=390). The sample was roughly 85% Caucasian (N=1133), 6% African American (N=75), 2% Hispanic (N=32), and 5% Asian (N=62). Table 1 also presents family income and parents' marital status.

Measures

Defense Mechanism Inventory

The Defense Mechanism Inventory (DMI; Gleser & Ihilevich, 1969), a reliable and valid measure of defensive functioning (Cooper and Kline, 1982; Cramer, 1988; Ihilevich & Glesser, 1993), was used to assess the young adults' level of defensive maturity. The DMI consists of ten stories describing different conflict situations. After reading each story, subjects rate five alternative responses to questions about the situation described.

Each of the five alternative responses represents one of five scales: (1) Principalization (PRN), which involves controlling anxiety through the use of reason and intellect and includes the defense mechanisms of intellectualization and rationalization; (2) Projection (PRO), which involves

attributing personally unacceptable states to others; (3)

Turning Against the Object (TAO), reducing painful

experience by externalizing anger against others; (4)

Reversal (REV), which involves blocking anxiety arousing

stimuli, thoughts, and feelings from entering awareness and

includes the defense mechanisms of denial, repression, and

reaction formation; (5) Turning Against the Self (TAS),

reducing painful experiences by directing punitive processes

against the self rather than toward the person who elicits

them. Findings indicate that PRN is the most mature style

while PRO and TAO are the least mature (Cramer, 1988). The

DMI can be found in Appendix A.

Background Information Ouestionnaire

Subjects provided information regarding their age, sex, ethnic/racial group, whether either of their parents are deceased, their parents' marital status, number of siblings (if any), and if so their birth order. A copy of the Background Information Questionnaire can be found in Appendix B.

Table 1

Demographic Characteristics of the Sample (N=1341)

		Total	% of Sample
Sex	Males	433	32.3
	Females	908	67.7
Age	17-18	951	70.9
	19-20	326	24.3
	21-22	52	3.9
	23-25 >26	5 7	. 4 . 5
Ethn	icity		
	Caucasian	1133	84.5
	African American	75	5.6
	Hispanic Asian	32 62	2.4 4.6
	Other	39	2.9
Fami	ly Income		
	<\$10,000	30	2.2
	\$10-30,000	134	10.0
	\$30-60,000 \$60-100,000	422 4 98	31.5 37.1
	>100,000	257	19.2
Pare	nt's Marital Status		
	Married	898	66.9
	Separated	38	2.8
	Divorced <1 year	40	3.0 5.5
	Divorced 1-3 years Divorced 4-7 years	74 70	5.5 5.2
	Divorced 8-11 years	81	6.0
	Divorced >12 years	140	10.4

RESULTS

A factor analysis of the DMI conducted by Aronoff, Stollak, and Woike (1994) produced a composite score labeled Defensive Maturity. Defensive Maturity was constructed by subtracting scores for the two least mature scales (PRO and TAO) from the scores for the two most mature scales (PRN and REV). However, there is controversy around what the REV scale means as it includes the primitive defense of denial. To keep the measure of defense maturity pure, REV was excluded from the composite score. TAS was always considered a separate factor.

Tests of Hypothesis¹

The hypothesis was that late adolescent males whose parents divorced as they were entering the latency years would have lower levels of defense maturity than other late adolescent males, whereas development of defenses for females would be independent of the timing of parental divorce. Table 2 presents the means relevant to this prediction. Inspection of the table shows that the female data were consistent with the prediction. However, the

¹For these and subsequent analyses, the data for those subjects who failed to complete entire questionnaires (124 of the initial sample of 1465) were not used.

direction of effects for males was not in the predicted direction. Therefore, since predicting differences for males was the critical comparison, the hypothesis was not supported.

Even though there was no real support for the component of the hypothesis concerning males, in hindsight the index of latency was not refined enough. Responses to "how long ago did parental divorce occur" served as a marker for how old the subjects were at the time of divorce. Subjects were considered to be in their latency years if their parents divorced more than 12 years ago. However, the subjects' ages ranged from 17 years of age to greater than 26 years of age. Consequently, some of the subjects could conceivably have already been out of their latency years at the time of their parents' divorce. A more refined marker for how old the subjects were when their parents divorced is to take into account the subjects' age at the time of the study along with how long ago parental divorce occurred. Given that subjects 17-18 years old at the time of the study whose parents divorced more than 12 years ago would be approximately 5-6 years old (entering the latency years), the data were re-analyzed using only 17-18 year olds. Table 3 shows the mean levels of defense maturity for 17-18 year olds. The direction of effects for males was now in the predicted direction. Nonetheless, differences between the means was not statistically significant; t=.93, p<.36.

Table 2

Means (and Number of Subjects) for Level of Defense Maturity

Н	ow Long Ago Divorce Occurr	ed
More than 12 years ago	Less than 11 years ago	No divorce
	Males	
0.70 (30)	-0.72 (71)	-3.84 (332)
	Females	
1.84 (95)	2.48 (156)	1.37 (657)

Table 3

Means (and Number of Subjects) for Level of Defense Maturity of 17-18 Year Olds

	How Long Ago Divorce Occurred	
More than 12 years ago	Less than 11 years ago	No Divorce
	Males	
-9.36 (14)	-2.13 (54)	-3.74 (235)
	Females	
3.51 (71)	3.79 (93)	24 (471)

Supplemental Analyses

Although the male data for 17-18 year olds were not statistically significant, it was not known what the pattern of defense maturity looked like for the older subjects. It may be that late adolescent males whose parents divorced when they were older have lower levels of defense maturity than other late adolescent males. Hence, an appropriate comparison might be between younger and older males. The data were then re-analyzed, including the older subjects, within the framework of a 2X2x2 ANOVA. Because in the initial analyses differences between the no divorce group and the divorce occurring less than eleven years ago group were not statistically significant, the groups were combined for ease of presentation. Table 4 contains a summary of three factors, subjects' sex, how long ago the divorce occurred, and subject's age at time of study, on Defense Maturity. The results revealed no significant main effects. However, the interaction between subject's sex, age at time of study, and when the divorce occurred was significant; F=7.49, p<.01.

Simple-effects tests were conducted to determine the significant conditional affects that generated the interaction. between subject's sex, age at time of study, and when the divorce occurred on level of defense maturity. Because understanding how a child's age at the time of divorce was the primary focus of this study, ANOVAs of

defense maturity using subjects' age at time of study and how long ago parental divorce occurred were examined separately for males and females. Table 5 contains a summary of the simple main effects and interactions of subjects' age at time of study and how long ago parental divorce occurred on defense maturity for males and females separately. As indicated, the results revealed that the interaction between subjects' age at time of study and how long ago parental divorce occurred was significant for males, but not significant for females.

Table 6 presents the mean levels of defense maturity for males taking into account their age at the time of the study and how long ago their parents divorce occurred. The simple-effect analysis revealed that males' age at the time of the study significantly affected the level of defense maturity when parental divorce occurred greater than 12 years ago (F=4.73, p<.05), but not when parental divorce occurred less than 11 years ago (F=.03, p<.85).

Given that there was a statistically significant interaction between male subjects' age at time of study and how long ago parental divorce occurred, it was thought that it would be interesting to see whether, for males, living with one parent or the other after the divorce relates to defense maturity. According to psychodynamic theory, a boy is said to begin to identify with his father during latency as a way of resolving the Oedipal conflict. In a divorce it

is usually the father who leaves the household (U.S. Bureau of the Census, 1993). Given that a father might be less available to his son if the mother is given physical custody, the boy may be less able to identify with his father and develop less mature defenses. An analysis was performed using a 2(age at time of study: 17-18 years old vs. 19 or older) X 2(when divorce occured: more than 12 years ago vs. less than 11 years ago) x 2 (which parent the male subjects lived with subsequent to the divorce: mother vs. father) ANOVA. Table 7 contains a summary of the main effects of male subjects' ages at time of study, how long ago parental divorce occurred, and where they resided, and their interactions on defense maturity. The results revealed that males who lived with their fathers after the divorce were more likely to have higher levels of defense maturity than males who lived with their mothers; F=8.89, p< .01. Furthermore, the results revealed that the three way interaction between male subjects' ages at time of study, the time at which parental divorce occurred, and where they resided was significant; F=6.71, p<.01.

Table 8 contains the cell means and number of subjects for level of defense maturity of males residing with mothers and males residing with fathers taking into account their age at the time of the study and the time at which their parents divorce occurred. The simple-effect analysis revealed that males older than 19 at the time of the study,

who lived with their fathers after the divorce, and whose parents divorced more than 12 years ago (F=24.77, p<.01), and males 17-18 at the time of the study, who lived with their fathers after the divorce, and whose parents divorced less than eleven years ago (F=5.55, p<.05) had the highest level of defense maturity. However, it is noted that because of the small sample sizes in this analysis, these results are tentative and should be considered as highly exploratory.

Table 4

Analysis of Variance of Main Factors on Defense Maturity

	F	Probability Level
Main Effects		
Sex (Male or Female)	1.26	.26
When Divorce Occurred (more than 12 years ago vs.		
less than eleven yrs ago)	.02	.89
Age at Time of Study (17-18 years old vs.		
>19 years old)	2.61	.11
2-Way Interactions		
Sex x When Divorce Occ.	1.15	.29
Sex x Age at Study	3.74	.06
When Divorce Occ x Age at Study	.40	.53
3-Way Interaction		
Sex x When Divorce Occ. x Age at Study	7.49	.01

Table 5
Simple Effect F Ratios of Main Factors on Defense Maturity

	Males	Females	
When Divorce Occurred			
(more than 12 years ago vs.			
less than eleven yrs ago)	. 52	. 72	
Age at Time of Study (17-18 years old vs.			
>19 years old)	4.52*	.08	
When Divorce Occurred			
x Age at Study	4.07*	3.60	

Note. *p<.05.

Means (and Number of Subjects) for Level of Defense Maturity of Males Taking Into Account Their Age at Time of Study and How Long Ago Parental Divorce Occurred

	17-18 Years O	ld Older Than 19
Divorce more 12 years ago	than	
	-9.36ª (14)	9.50 ^b (13)
Divorce less 11 years ago or never	than	
	-3. 4 6 (289)	-2.97 (117)

Analysis of Variance of Main Factors on Defense Maturity
Taking Into Account Which Parent Male Subjects Lived With
Subsequent to the Divorce

	F	Probability Level
Main Effects When Divorce Occurred (more than 12 years ago		
less than eleven yrs ago)	.20	.66
Age at Time of Study (17-18 years old vs.		
>19 years old)	3.38	.07
Where Resided (with mother		
with father)	8.89	.01
2-Way Interactions When Divorce Occurred x Age at Study	11.11	.01
When Divorce Occurred		
x Where Resided	.01	.93
Age at Study x Where Resided	.38	. 54
3-Way Interaction When Divorce Occurred		
x Age at Study x Where Resided	6.71	.01

Table 8

Means (and Number of Subjects) for Level of Defense Maturity of Males Residing with Mothers and Males Residing with Fathers After Parents' Divorce

Divorce more than 12 years ago	Divorce less than 11 years ago
Residing with	Mother
17-18 years old	
-8.91 (11)	-7.57 (30)
Older than 19	
4 .00 (12)	-4.17 (12)
Residing with	Father
17-18 years old	
-11.00 ^a (3)	25.60 ^b (5)
Older than 19	
44.00° (2)	2.80 ^d (5)
Note. ab p<.05. cd p<.01.	

DISCUSSION

This study sought to examine how the age at which divorce first occurs relates to variations in defense mechanisms. It was hypothesized that parental divorce during the latency years would affect the development of defense mechanisms for males, whereas the development of defenses for females would be independent of the timing of parental divorce. Initially, tests of this hypothesis did not bear out. However, supplemental analyses of the data provided some support for this hypothesis. It was found that the interaction between subjects' age at time of study and how long ago parental divorce occurred was significant for males but not for females (see Table 5). By taking into account the subjects' age at time of study and how long ago they reported parental divorce occurred, three groups of approximate ages at which parental divorce occurred emerged; 5-6 year-olds, 6-7 year-olds, and older than 7 years-old. It was found that boys approximately 5-6-years-old at time of parental divorce have lower levels of defense maturity than boys at least 7-years-old at time of parental divorce (see Table 6).

The finding that divorce particularly effects early latency age boys is consistent with the work of Palosaari and Aro (1994) and Wallerstein (1987) who found that the effects of divorce appear to be mediated by the child's sex and age at the time of the divorce. The finding that there

is a relationship between divorce and lower levels of defense maturity in late adolescent males whose parents divorced when they were 5- 6-years-old is also congruent with the work of Tauscke, Mersky, and Helmes (1990) and Schmidt, Stone, Tiller, and Treasure (1993) who ascertained that childhood trauma impaired the maturation of defense mechanisms.

In addition, it was found that boys who were at least 6-7 years-old at the time of the divorce and lived with their fathers following the divorce had higher levels of defense maturity than either boys younger than 5-years-old who lived with their fathers, boys older than 7-years-old who lived with their fathers, or boys of any age who lived with their mothers after the divorce. This suggests that divorce and subsequent living with father during middle latency positively sensitizes a boy to identification. The finding that boys who were at least 6-years-old at the time of divorce and lived with their fathers following the divorce had the highest levels of defense maturity lends some empirical support to psychodynamic theory which postulates that the oedipal phase of development is thought to be responsible for initiating identity formation. The more available the father is the more able the boy will be to identify with him, and the boy will be able to use more mature defenses in order to deal with the anxiety of the oedipal situation.

Understanding how defense mechanisms develop and what experiences may lead to disturbances in their development has clinical utility. From a psychoanalytic perspective it has long been held that childhood events shape personality. One goal of therapy is to have the individual work through those events through the corrective emotional experience (Alexander and French, 1946). If, indeed, parental divorce in the beginning of a boy's latency period leads to overdependence on immature defenses then it would be an important part of treatment to work through feelings about the divorce in order to achieve greater maturity.

Moreover, the finding that latency aged boys who lived with their fathers after their parents divorced had more mature defenses has practical implications regarding physical custody policy. Given that currently most children live with their mothers after divorce (U.S. Bureau of the Census, 1993), perhaps custody arrangements should be different with latency aged boys whose fathers are especially mature and competent caregivers.

Methodological Limitations of Study

One limitation of the current study was that the subject's age at which divorce first occurred was not directly assessed. In order to determine the subject's age at time of divorce an approximation was obtained by subtracting how long ago the subjects reported the divorce occurred from the subjects age at the time of the study. It

is noted that this method of calculating the subjects' age at time of divorce does not provide for accurate data, and as such interpretations based on the results should be taken as indicators of a potential relationship between parental divorce during childhood and defense mechanisms.

Furthermore, even if there is a potential relationship between parental divorce during childhood and defense mechanisms, the design of the study does not permit one to tell the direction of the relationship. The current study assessed defense mechanisms of the subjects after the divorce had occurred. Thus, it may be the case that parental divorce during a boy's latency period impairs the development of defenses. However, it may equally be the case that boys with immature defenses create difficulties for parents which lead to parental conflict.

The use of the demographic variable of parental divorce as the independent variable could be criticized as simplistic. Family systems theorists assert that characteristics of family interactions (e.g., varying levels of family cohesion, adaptability, and communication) serve to facilitate or hinder each member's social and emotional growth and ability to cope with stress and heightened levels of anxiety (Beavers and Hampson, 1990; Beavers and Voeller, 1983; Minuchin, 1974; Olson, Russell, and Sprenkle, 1983; Ransom, 1985; Williamson and Bray, 1985). One type of family interaction that has an adverse effect on children is

perceptions of interparental conflict (Camera and Resnick, 1989: Emery, 1988: Kelly, 1993: Peterson and Zill, 1986), and conflict between parents may have as strong or stronger an effect on children as the divorce and the divorce process themselves (Camera and Resnick, 1989: Emery, 1988: Kelly, 1993: Peterson and Zill, 1986). Lastly, child, adolescent, and adult perceptions of parental caregiving can also be related to variations in defense mechanisms.

Future Directions

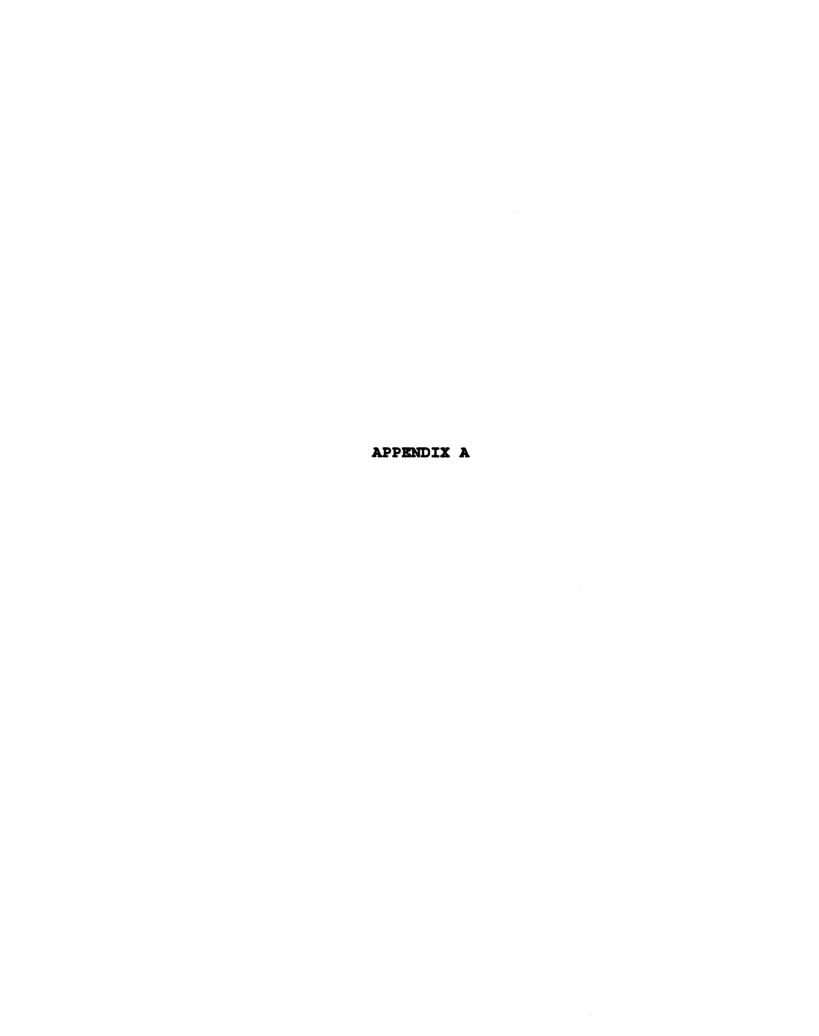
The limitations of the current study suggest future studies that might be conducted to examine the impact of the childhood experience of divorce on the development of defense mechanisms. First, it would be useful to have exact ages of the subjects at both the time of the divorce (as well as separation) and at the time of follow-up. It would also be useful to measure characteristics of the family environment. Lastly, it would be critical to conduct a longitudinal study to examine how a child's age, gender, and experiences of family life interact, over time, to influence the development of defenses.

Summary and Conclusions

It was found that the development of defenses for young women was independent of the timing of divorce, whereas young men whose parents divorced as they were entering the latency period had lower levels of defense maturity than other young men. However, the results of the current study

are severely hampered by methodological limitations.

Nonetheless, the results of the current study indicate that efforts to assess the impact of childhood family experiences on the development of defenses are valuable. Future studies would profit from using a prospective design that examines the impact of specific negative childhood (family, peer, and school) experiences in a more complex manner than was possible in the current study.



APPENDIX A

DEFENSE MECHANISMS INVENTORY (DMI)

Survey of Reactions to Situations

INSTRUCTIONS: Read carefully. (Do not make any marks on this booklet.)

On each of the following pages is a short story. Following each story are four questions with a choice of five answers for each. The four questions relate to the following four kinds of behavior: actual behavior, and impulsive behavior in fantasy, thoughts, and feelings. Of the four, it is only actual behavior which is outwardly expressed; the other three take place only in the privacy of one's mind.

What we want you to do is to select the <u>one</u> answer of the five which you think is the most representative of how you would react, and mark the number corresponding to that answer on the computer answer sheet by darkening the space marked three (3) next to that number. Then select the <u>one</u> answer you think is least representative of how you would react and mark it by darkening the space marked one (1) next to that number. The other three responses should be marked as two (2). For example, let us assume that out of the five possible answers to a question (e.g., 6, 7, 8, 9, 10), response number 7 is the one you consider most representative of the way you would react, and response number 10 is the least responsive.

Read all the five answers following the question <u>before</u> you make your selections. In marking your answers on the computer sheet, be sure that the number of the answer agrees with the number on the computer sheet.

You are waiting for the bus at the edge of the road. The streets are wet and muddy after the previous night's rain. A car sweeps through a puddle in front of you, splashing your clothing with mud.

What would your ACTUAL reaction be?

- 1. I would note the car's license number so that I could track down that careless driver.
- 2. I'd wipe myself off with a smile.
- 3. I'd yell curses after the driver!
- I would scold myself for not having at least worn a raincoat.
- 5. I'd shrug it off; after all things like that are unavoidable.

What would you IMPULSIVELY (in fantasy) want to do?

- 6. Wipe that driver's face in the mud.
- 7. Report that incompetent driver to the police.
- 8. Kick myself for standing too close to the edge of the road.
- 9. Let the driver know that I don't really mind.
- 10. Inform that driver that bystanders also have rights.

What THOUGHT might occur to you?

- 11. Why do I always get myself into things like this?
- 12. To hell with that driver!
- 13. I'm sure that basically that driver is a nice fellow.
- 14. One can expect something like this to happen on wet days.
- 15. I wonder if that driver splashed me on purpose.

- 16. Satisfied; after all it could have been worse.
- 17. Depressed, because of my bad luck.
- 18. Resigned, for you've got to take things as they come/
- 19. Resentment, because the driver was so thoughtless and inconsiderate.
- 20. Furious, that the driver got me dirty.

In the army you hold a post of responsibility for the smooth operation of an important department which is constantly under great pressure to meet deadlines. Because things haven't been running as smoothly as they should lately, despite your initiative and resourcefulness, you have planned some changes in personnel for the near future.

Before you do so, however, your superior officer arrives unexpectedly, asks some brusque questions about the work of the department and then tells you that you are relieved of your post and your assistant is assigned to take your place.

What would your ACTUAL reaction be?

- 21. I'd accept my dismissal gracefully, since my superior is only doing his job.
- 22. I'd blame my superior for having made up his mind against me even before the visit.
- 23. I'd be thankful for having been relieved of such a tough job.
- 24. I'd look for an opportunity to undercut my assistant.
- 25. I'd blame myself for not being competent enough.

What would you IMPULSIVELY (in fantasy) want to do?

- 26. Congratulate my assistant on the promotion.
- 27. Expose the probable plot between my superior and my assistant to get rid of me.
- 28. Tell my superior to go to hell.
- 29. I'd like to kill myself for not having made the necessary changes sooner.
- 30. I'd like to quit, but one can't do that in the army.

What THOUGHT might occur to you?

- 31. I wish I could come face to face with my superior in a dark alley.
- 32. In the army it is essential to have the right person in the right job.
- 33. There is no doubt that this was just an excuse to get rid of me.
- 34. I'm really lucky that I only lost my job and not my rank as well.
- 35. How could I be so dumb as to let things slide?

- 36. Resentful, because he had it in for me.
- 37. Angry, at my assistant for getting my job.
- 38. Pleased that nothing worse happened.
- 39. Upset that I am a failure.
- 40. Resigned; after all one must be satisfied with having done the best one can.

You are living with your aunt and uncle, who are helping to put you through college. They have been taking care of you since your parents were killed in an automobile accident when you were in your early teens. On a night that you have a late date with your "steady," there is a heavy storm outside. Your aunt and uncle insist that you call and cancel your date because of the weather and the late hour. You are about to disregard their wishes and go out the door when your uncle says in a commanding tone of voice, "Your aunt and I said that you can't go, and that is that."

What would your ACTUAL reaction be?

- 41. I would do as my uncle said because he has always wanted what was best for me.
- 42. I'd tell them, "I always knew you didn't want me to grow up."
- 43. I would cancel my date, since one must keep peace in the family.
- 44. I'd tell them it was none of their business and go out anyway.
- 45. I'd agree to remain at home and apologize for having upset them.

What would you IMPULSIVELY (in fantasy) want to do?

- 46. Knock my head against the wall.
- 47. Tell them to stop ruining my life.
- 48. Thank them for being so concerned about my welfare.
- 49. Leave, slamming the door in their faces.
- 50. Keep my engagement, rain or shine.

What THOUGHT might occur to you?

- 51. Why don't they shut up and let me alone?
- 52. They never have really cared about me.
- 53. They are so good to me, I should follow their advice without question.
- 54. You can't take without giving something in return.
- 55. It's all my own fault for planning such a late date.

- 56. Annoyed, that they think I am a baby.
- 57. Miserable, because there is nothing much I can do.
- 58. Grateful for their concern.
- 59. Resigned; after all, you can't get you way every time.
- 60. Furious, because they interfere with my private affairs.

You are extremely eager to do well in sports, but of all those at which you have tried your hand, only in basketball have you been able to achieve a measure of success. However, until now, whenever you have applied for membership in a team or sports club, although the judges have appeared impressed with your initial performance, their final decision has always been the same--they tell you that you've just missed the grade.

One afternoon your car breaks down and you are forced to take a bus home during the rush hour. As you stand in the crowded bus, you hear your wife's voice. She is seated together with the manager of the team to which you have just applied. You overhear the manager tell her, "Your husband has a nice style of play, we're thinking of asking him to join our club." Then you hear your wife laugh and reply, "Take it from me, he hasn't got what it takes in the long run."

What would your ACTUAL reaction be?

- 61. I'd tell her off when we got home.
- 62. I would greet her affectionately as usual, when I arrived home, because I know she really appreciates me.
- 63. I'd be quiet and withdrawn for the rest of the evening, not mentioning what I had overheard.
- 64. I'd take it in my stride, for women's talk is never taken seriously.
- 65. I'd tell her that I wasn't surprised by what I'd overheard because I always thought she was two-faced.

What would you IMPULSIVELY (in fantasy) want to do?

- 66. Tell my wife that I overheard her and was proud of her frankness.
- 67. Break her neck.
- 68. Tell her that men expect loyalty from their wives.
- 69. Let her know that I'd always suspected her of talking behind my back.
- 70. Stop off somewhere so I wouldn't have to face her.

What THOUGHT might occur to you?

- 71. I bet she talks about me that way to everybody.
- 72. What could I have done that makes her feel this way about me?
- 73. I'm sure she's only kidding.
- 74. One shouldn't be bothered by such talk.
- 75. She needs to be taught a lesson.

How would you FEEL and why?

76. Worthless, because I'd realize what a failure I was as a husband.

- 77. Furious at her for speaking about me that way.
- 78. Outraged, because her gossip has probably contributed to most of my past failures.
 80. Serene, because I know the manager will realize that she
- doesn't know what she is talking about.

At your job you want to impress upon your foreman the fact that you are more skilled than your fellow workers. You are eagerly awaiting an opportunity to prove yourself.

One day a new machine is brought into the factory. The foreman call all the workers together and asks whether anyone knows how to operate it. You sense the chance you have been waiting for, so you tell the foreman that you have worked with a similar machine and would like a chance to try your hand at this one. He refuses, saying, "Sorry, we can't take a chance," and calls a veteran worker to come over and try to get the machine started.

No sooner has the veteran worker pulled the starter, than sparks begin to fly and the machine grinds to a halt. At this point the foreman call and asks if you still want a chance to try and start the machine.

What would your ACTUAL reaction be?

- 81. I'd say that I doubt if I could do it either.
- 82. I'd tell my fellow workers that the foreman wants to hold me responsible for the machine's crack-up.
- 83. I'd tell the foreman that I appreciated being given the chance.
- 84. I'd decline, cursing the foreman under my breath.
- 85. I'd tell the foreman that I would try because one must never back down from a challenge.

What would you IMPULSIVELY (in fantasy) want to do?

- 86. Tell that foreman that he'll not make me the scapegoat for a broken machine.
- 87. Thank the foreman for not letting me try it first.
- 88. Tell the foreman that he should try to start the broken machine himself.
- 89. Point out to the foreman that experience doesn't quarantee success.
- 90. Kick myself for talking myself in to an unbearable situation.

What THOUGHT might occur to you?

- 91. That foreman is really a pretty decent guy.
- 92. Damn him and his blasted machine.
- 93. This foreman is out to get me.
- 94. Machines are not always reliable.
- 95. How could I be so stupid as to even think of operating that machine.

- 96. Indifferent, because when one's abilities are not appreciated one's enthusiasm is lost.
- 97. Angry that I was asked to do an impossible job.
- 98. Glad that I didn't wreck the machine.
- 99. Annoyed that I was purposely put on the spot.
- 100. Disgusted with myself because I risked making a fool out of myself.

On your way to catch a train, you are hurrying through a narrow street line with tall buildings. Suddenly a piece of masonry comes crashing down from a roof where repairmen are working. A piece of brick bounces off the sidewalk, bruising your leg.

What would your ACTUAL reaction be?

- 101. I'd tell them I ought to sue them.
- 102. I'd curse myself for having such bad luck.
- 103. I'd hurry on, for one should not permit oneself to be diverted from one's plans.
- 104. I'd continue on my way, grateful that nothing worse had happened.
- 105. I'd try to discover who these irresponsible people are.

What would you IMPULSIVELY (in fantasy) want to do?

- 106. Remind the repairmen of their obligation to public safety.
- 107. Assure those men that nothing serious had happened.
- 108. Give them a piece of my mind.
- 109. Kick myself for not having watched where I was going.
- 110. See to it that those careless workers pay for their negligence.

What THOUGHT might occur to you?

- 111. Those repairmen don't know how to do their job right.
- 112. I'm lucky that I wasn't seriously hurt.
- 113. Damn those men!
- 114. Why do these things always happen to me?
- 115. One can't be too careful these days.

- 116. Angry, because I was hurt.
- 117. Furious, because I was almost killed by their negligence.
- 118. Calm, for one must practice self-control.
- 119. Upset by my bad luck.
- 120. Thankful that I'd gotten away with no more than a scratch.

Driving through town in the late afternoon, you arrive at one of the busiest intersections. Although the light has changed in your favor, you see that pedestrians are not obeying the "wait" sign and are blocking your path. You attempt to complete your turn with due caution before the light turns against you, as the law requires. As you complete the turn, a traffic policeman orders you over to the side and charges you with violating the pedestrians' right-of-way. You explain that you had taken the only possible course of action, but the policeman proceeds to give you a ticket nevertheless.

What would your ACTUAL reaction be?

- 121. I'd blame myself for having been careless.
- 122. I'd go to court and bring counter charges against the policeman.
- 123. I'd ask the policeman why he has such a grudge against drivers.
- 124. I'd try to cooperate with the policeman, who after all, is a good guy.
- 125. I'd take the ticket without question, since the policeman was just doing his duty.

What would you IMPULSIVELY (in fantasy) want to do?

- 126. Tell the policeman he can't use his position to push me around.
- 127. Kick myself for not having waited for the next green light.
- 128. Thank the policeman for saving me from a possible accident.
- 130. Slam the door in his face and drive off.

What THOUGHT might occur to you?

- 131. He's doing the right thing, actually I ought to thank him for teaching me an important lesson.
- 132. Each man must carry out his job as he sees it.
- 133. This guy ought to go back to pounding a beat.
- 134. How could I be so stupid!
- 135. I bet he gets a kick out of giving tickets to people.

- 136. Boiling anger, because he's making trouble for me.
- 137. Resentment, because he's picking on me.
- 138. Ashamed, because I was negligent.
- 139. Indifferent, after all, this sort of thing happens all the time.
- 140. Relieved, because I'd been prevented from getting into worse trouble.

You return home after spending two years in the army. At the time you joined, you had a choice between enlistment and a position in your father's business. You preferred the army despite parental advice. Now that you are home again, you find that your range of opportunity hasn't widened appreciably. You can either join your father's business or get a job as an untrained worker. You would like to open a coffee shop, but you lack the capital necessary to carry out such an enterprise. After a great deal of hesitation, you decide to ask your father to put up the money. After listening to your proposal, he reminds you that he had wanted you to take a job with his firm instead of joining the army. Then he tells you, "I'm not prepared to throw away my hard-earned money on your crazy schemes. It's time you started helping me in my business."

What would your ACTUAL reaction be?

- 141. I'd accept his offer since everyone depends on everyone else in this world.
- 142. I would admit to him that I guess I am a bad risk.
- 143. I'd tell him off in no uncertain terms.
- 144. I'd tell him that I'd always suspected that he had a grudge against me.
- 145. I'd thank him for holding a job open for me all these years.

What would you IMPULSIVELY (in fantasy) want to do?

- 146. Go to work for him and make him happy.
- 147. Give up trying and end it all.
- 148. Take my father's offer since offers like that don't grow on trees.
- 149. Let him know what a miser everyone thinks he is.
- 150. Tell him that I wouldn't work for him if he were the last man on earth.

What THOUGHT might occur to you?

- 151. He'll get what's coming to him one day.
- 152. Family considerations can't enter into business decisions.
- 153. Why was I so stupid as to bring the subject up.
- 154. I must admit that my father is acting for my own good.
- 155. This proves what I've suspected all along, that my father has never believed in me.

- 156. Angry, because he doesn't want me to succeed on my own.
- 157. Grateful for his offer of a job with a future.
- 158. Resentful that he is sabotaging my future.
- 159. Resigned, since you can't have everything your own way all the time.
- 160. Hopeless, because I couldn't get my father's approval.

One afternoon while you and a close friend are cramming for exams, your girl friend drops by unexpectedly. Although you and she have been going steady for over a year, you have not been able to see much of each other lately; therefore you are very happy she has come. You invite her in and introduce her to your friend and the three of you spend a pleasant hour together. A few days later you ring her up and invite her to go out on the town to celebrate the end of exam week, but she tells you that she has come down with a bad cold and thinks it is best for her not to leave the house. After dinner you feel sort of let down and decide to got to the movies by yourself. Coming out of the movie theater, you come upon your pal arm-in-arm with your girl friend.

What would your ACTUAL reaction be?

- 161. I'd tell my girl she could have told me it was over instead of cheating behind my back.
- 162. I'd greet them politely as a civilized person should.
- 163. I'd make sure they both knew I wanted nothing more to do with them.
- 164. I'd tell them that I am delighted that they have become friends.
- 165. I'd duck out of sight to avoid facing them.

What would you IMPULSIVELY (in fantasy) want to do?

- 166. Go back home and sulk.
- 167. Knock him down and grab the girl away.
- 168. Show them that O really don't mind their being together.
- 169. Ask him if stealing is the only way he knows of getting a woman.
- 170. Indicate that it takes more than one battle to win a war.

What THOUGHT might occur to you?

- 171. This wouldn't have happened if I had been more attentive to her.
- 172. All's fair in love and war.
- 173. They certainly are a pair of double-crossers.
- 174. I hope they get what they deserve.
- 175. I was getting tired of her, anyhow.

- 176. Relieved that I was free again.
- 177. Upset, because I shouldn't have been so trusting.
- 178. Resigned, because You've got to take life as it comes.
- 179. Disgusted, Because of their dishonesty.
- 180. Furious at them because of what happened.

You and an old school friend are competing for a newly vacated executive position in the firm where you work. Although both your chances seem about equal, your friend has had more opportunity to show resourcefulness in critical situations. Recently, however, you have successfully pushed through some excellent deals. In spite of this, the board of directors decides to promote your friend rather than you.

What would your ACTUAL reaction be?

- 181. I'd try to find out which director "blackballed" me.
- 182. I'd continue to do my duty as a responsible person must.
- 183. I'd accept the outcome as proof that I'm not executive material.
- 184. I'd protest the decision of the board most vehemently.
- 185. I'd congratulate my friend on the promotion.

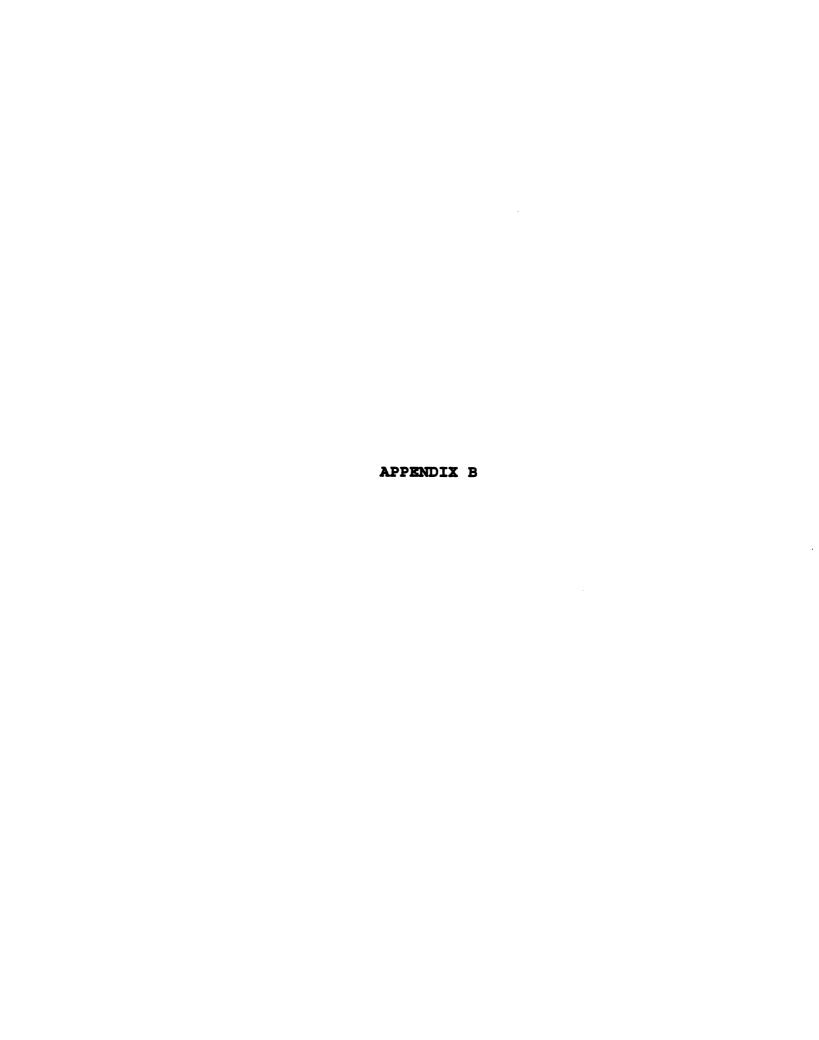
What would you IMPULSIVELY (in fantasy) want to do?

- 186. Ask the board to reconsider, since a mistake would be detrimental to the company.
- 187. Kick myself for having aspired to a job for which I wasn't qualified.
- 188. Show the board how biased they've been in their unjust treatment of me.
- 189. Help my friend make a success at the new job.
- 190. Break the neck of each and every member of the board of directors.

What THOUGHT might occur_to_you?

- 191. I guess I just don't have what it takes.
- 192. I probably wouldn't enjoy an executive position as much as the one I have now.
- 193. There certainly is something fishy about the board's decision.
- 194. One must take a blow such as this in one's stride.
- 195. Damn that board of directors.

- 196. Happy that I still have the job I am used to.
- 197. Upset because my inadequacy was made public.
- 198. Furious at the directors because of their treatment of me.
- 199. Resigned, for that's the way it goes in the business world.
- 200. Angry, because I have been the victim of an unjust decision.



APPENDIX B

BACKGROUND INFORMATION QUESTIONNAIRE

The following are items and questions concerning yourself and your family. For each item and question please fill in the number on the scoring sheet that is the most accurate answer regarding yourself and/or your family.

- 1. My sex:
 - 1.Male
 - 2.Female
- 2. My age at my last birthday:
 - 1. 17 or 18
 - 2. 19 or 20
 - 3. 21 or 22
 - 4. 23, 24, or 25
 - 5. 26 or older
- 3. My ethnicity/racial group:
 - 1. Caucasian/Non-Hispanic
 - 2. African American/Non-Hispanic
 - 3. Hispanic/Latino
 - 4. Asian American
 - 5. Other (please describe your ethnicity/racial group on the margin of the scoring sheet)
- 4. The kind of community in which I lived for most of my life:
 - 1. large city (over 250,000 persons)
 - 2. medium size city (between 50,000-250,000 persons)
 - 3. small city (between 25,000-50,000 persons)
 - 4. suburban community (village or town of less than 25,000 persons) near a city
 - 4. rural
- 5. My current relationship status:
 - 1. Single and not dating
 - 2. dating several different people
 - 3. Dating the same person for the last year
 - 4. Engaged
 - 5. Married
- 6. Number of years at M.S.U.:
 - 1. This is my first year
 - 2. This is my second year
 - 3. This is my third year
 - 4. This is my fourth year
 - 5. I have been here for more than four years

THE FOLLOWING QUESTIONS GIVE US INFORMATION ABOUT CHARACTERISTICS OF YOUR FAMILY AND YOUR PERCEPTIONS OF FAMILY LIFE

- 7. I am the:
 - 1. Oldest child
 - 2. Middle child
 - 3. About middle
 - 4. Youngest child
 - 5. Only child
- 8. I have at least one older sibling who is male:
 - 1. Yes
 - 2. No
- 9. I have at least one older sibling who is female:
 - 1. Yes
 - 2. No.
- 10. I have at least one younger sibling who is male:
 - 1. Yes
 - 2. No
- 11. I have at least one younger sibling who is female:
 - 1. Yes
 - 2. No
- 12. Estimate of annual family income:
 - 1. Less than \$10,000
 - 2. \$10,000-\$30,000
 - 3. \$30,000-\$60,000
 - 4. \$60,000-\$100,000
 - 5. Above \$100,000
- 13. Father's education:
 - 1. Some high school or less
 - 2. High school graduate
 - 3. Some college or technical school
 - 4. College or technical school graduate
 - 5. Professional/graduate degree
- 14. Mother's education:
 - 1. Some high school or less
 - 2. High school graduate
 - 3. Some college or technical school
 - 4. College or technical school graduate
 - 5. Professional/graduate degree

- 15. Are either of your biological parents deceased?
 - 1. Yes, both of my parents are deceased (complete questions 16 and 17)
 - 2. Yes, my father is deceased (go to item 16)
 - 3. Yes, my mother is deceased (go to item 17)
 - 4. No, neither of my parents are deceased--GO TO OUESTION 18
- 16. If your biological father is deceased, how long ago did he pass away?
 - 1. Less than one year ago
 - 2. 1 to 3 years ago
 - 3. 4 to 7 years ago
 - 4. 8 to 11 years ago
 - 5. 12 years or more ago
- 17. If your biological mother is deceased, how long ago did she pass away?
 - 1. Less than one year ago
 - 2. 1 to 3 years ago
 - 3. 4 to 7 years ago
 - 4. 8 to 11 years ago
 - 5. 12 years or more ago
- 18. If neither of your biological parents are deceased what is their current marital status?
 - 1. Married
 - 2. Separated
 - 3. Divorced in the last year and both still single
 - 4. Divorced over a year ago and both still single
 - 5. Divorced in the last year or over a year ago and either one or both of my parents remarried

IF THEY ARE SEPARATED OR DIVORCED PLEASE ANSWER QUESTIONS 19-21.

- 19. How long ago did the divorce or separation occur?
 - 1. Less than one year ago
 - 2. 1 to 3 years ago
 - 3. 4 to 7 years ago
 - 4. 8 to 11 years ago
 - 5. More than 12 years ago
- 20. With whom did you live or do you live (while at home)?
 - 1. Mother
 - 2. Father
 - 3. Both (I spent/spend about equal time with each of my divorced/parents)
 - 4. Neither (I did not live with nor do I visit with either of my parents)

21.	If you lived/lidescribe contact. Constant Frequent Intermittent Infrequent Never	t with t			ent, how	v wou]	.d you
	FOLLOWING QUEST YOU FEEL ABOUT						ABOUT
22.	On a scale of 1 functioning of			rate t	he <u>over</u>	all	
fam	1 members of my ily function l together	2	3		4 The	famil funct	5 ers of my y do not ion well ogether
23.	On a scale of 1 my family as:	to 5, I	would	rate <u>r</u>	espect	and r	<u>regard</u> in
fee	1 of respect for lings and messag others		3		oth	respec	5 stently tful of feelings ages
24.	On a scale of 1 in my family as		would	rate <u>f</u>	reedom	of ex	pression
of s	1 requent discussi self, feelings a ationships.		3		of s	elf,	5 scussion feelings ionships
25.	On a scale of 1 communication s					ener	
	1 athic and entive	2	3			_	5 empathic ntively ning



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