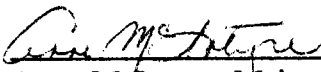
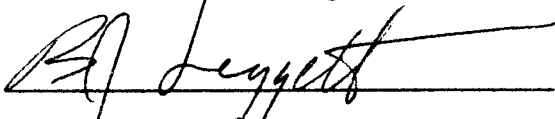
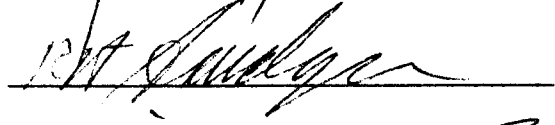


To the Graduate Council:

I am submitting herewith a dissertation written by Tamara Gail Roberts entitled "Experience of and Response to Frustration Among Foster and Home-Reared Adolescents." I have examined the final copy of this dissertation for form and content and recommend that it be accepted in partial fulfillment of the requirements for the degree of Doctor of Philosophy with a major in Psychology.


Anne McIntyre, Major Professor

We have read this dissertation
and recommend its acceptance:


Accepted for the Council:


Associate Vice Chancellor
and Dean of The Graduate School

EXPERIENCE OF AND RESPONSE TO FRUSTRATION
AMONG FOSTER AND HOME-REARED ADOLESCENTS

A Dissertation

Presented for the

Doctor of Philosophy

Degree

The University of Tennessee, Knoxville

Tamara Gail Roberts

December, 1993

DEDICATION

This thesis is dedicated to my cat, Sigmund,
for all of his unconditional love, support, friendship and cuddling
throughout my graduate school career.

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ABSTRACT

Differences in the report of and response to frustration were studied between 54 home-reared adolescents and 50 foster adolescents. Theoretical clarification regarding factors related to the report of frustration and hostile, blame-oriented response to frustration were also investigated in this study using the Rosenzweig Picture Frustration Test as well as a self-report measure of frustration experience. Findings showed that foster adolescents report significantly less frustration in the face of obstacles than do home-reared adolescents. Results also showed that elevated levels of Verbal IQ are related to decreased levels of frustration report, and that immature ego development is related to aggressive, blame-oriented, hostile response to frustration. The implications of these findings are discussed, and are compared and contrasted to information presented in studies of adult home-reared populations.

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CHAPTER I

INTRODUCTION

Normal adolescent development is commonly regarded as one of the most frustrating and stressful developmental stages in an individual's life (Greydanus, 1986). During this stage, the adolescent is engaged in a process of separating from his/her own parents and defining self apart from his/her primary caregivers and family. Although the expectations of society seem to coincide with adolescents' desires for independent living, society also places pressure on the adolescent to adapt to the maturational effects of puberty within certain set limits of what is considered appropriate for "children." Additionally, during adolescence the individual is flooded by awakening desires and feelings produced by hormonal changes and is simultaneously expected to contain and inhibit these impulses within the restrictions placed on the teen by society. In light of the many demands present during adolescence, it is not surprising that most individuals find issues of control, autonomy and frustration to be especially salient during this developmental stage. For adolescents in foster care (a substitute form of care provided children for a planned period of time, usually initiated for various reasons such as abuse, neglect, desertion or breakdown in the psychosocial functioning of a parent), issues concerning self-control and experiences with frustration may even be more pronounced during adolescence than with home-reared teens. (For the purposes of this study frustration will be defined as emotion experienced upon the confrontation

of an obstacle or with the thwarting of a goal or desire). Judging from the literature, foster-teens seem to consistently display personality attributes that have been found to be related to maladaptive responses to frustration in adults and young-adults.

Research findings from studies of foster populations and of adults converge with theoretical conceptualizations of psychosocial development during adolescence to suggest the importance of studying frustration in foster and home-reared adolescents. Judging from the empirical studies of foster adolescents, it seems that foster teens often manifest characteristics such as immature ego development, external attributional orientation, and a history of externally inflicted emotional trauma that render them more vulnerable to negative experiences with frustration during adolescence than their home-reared peers. Studies involving non-foster populations of adults and late adolescents have yielded findings which suggest that foster adolescents may experience more difficulty adjusting to the frustration inherent in adolescence. More specifically, these studies suggest that an individual's attributional orientation and level of ego development may influence one's reaction to and experience of frustration. Psychoanalytic theories of psychosocial development in adolescence also imply that foster children are more likely to have difficulty with frustrating obstacles as a result of past trauma involving helplessness and lack of control over the events in their life. Across studies concerning frustration done on non-foster populations there are differing variables thought to determine an individual's response to frustration. There seems to be some

theoretical confusion as to the factors influencing one's response to frustration and none of the studies examining frustration have considered the possibility that multiple factors may determine response to and experience of frustration.

When all of the existing literature concerning foster-children, frustration and adolescence is considered, it seems of crucial importance to investigate more thoroughly the reaction to and experience of frustration among home-reared and foster adolescents. Although this issue has never been studied directly, the existing literature seems to suggest that foster children may have significant difficulty coping with frustration during adolescence in comparison to home-reared teens. It likewise seems necessary to broaden the theoretical understanding of adolescent frustration and attempt to articulate more clearly the ways in which personality determines a teen's adaptation to adolescent frustration. The converging empirical and theoretical literatures will be described and eventually integrated in the following chapter as a foundation for the research proposed in this study.

Psychosocial Characteristics of Foster Populations

Many researchers have attempted to isolate personality characteristics prevalent in foster populations. Some of these researchers have noted unusually low levels of ego development among foster children characterized by defiant conduct, poor impulse control and the exploitation of others for personal gratification (McIntyre, 1991). For example, a study investigating the psychosocial characteristics of foster adolescents demonstrated a high incidence of immature

ego-development among foster adolescents as measured by the Sentence Completion Test (McIntyre, 1991). McIntyre, Lounsbury, Berntson and Steel (1988) conducted a study investigating psychosocial characteristics of a younger group of foster children using a 12 item picture projective test (the Tasks of Emotional Development Test). Their findings suggest that foster children may have a significantly greater orientation than do home-reared children toward acting on impulses and exploiting others for the gratification of impulses. Based on Loevinger's theory of ego development, levels of ego development immature for adolescents are, at least in part, characterized by problems of impulse control and the exploitation of others for personal gratification (Loevinger, 1966). Fanshel and Shinn (1978) conducted a 5-year longitudinal study in which all New York City children placed in nontreatment foster settings in 1966 (age ranging from birth to 12 years) were given three individual psychological evaluations over the period of the study. Each time, examining clinicians classified the children as psychologically "normal," "abnormal," or "suspect" for abnormality. The findings of this study indicate that about 24% of the foster children sampled were classified as "abnormal" or "suspect." Likewise, McIntyre and Kessler (1986) studied the rate and pattern of psychopathology as measured by the Child Behavior Checklist (CBCL; Achenbach & Edelbrock, 1983) of 158 foster children between the ages of 4 and 18 in the Tennessee area. Of the foster children studied 48.7% manifested clinical psychological disorders and the full spectrum of symptom syndromes identified by the CBCL was represented among the foster children. The researchers highlighted

in their study the diverse variety and prevalence of conduct problems found in their sample. Although problem behaviors are often associated with psychopathology in children it has been suggested by Loevinger (1966) that "acting out" behaviors may also be indicative of problems with impulse control and do not necessarily imply a clinical disorder. As one can see, many studies done investigating unique aspects of foster status have noted the prevalence of conduct problems, exploitative tendencies and poor impulse control in foster samples. Close examination of the literature reveals a prevalence of problem behavior even in the absence of clinical pathology and suggests that retarded ego development and resulting difficulty with impulse control may be a distinctive characteristic associated with foster status.

In addition to problems with impulse control, studies have also shown a high incidence of external attributional orientation among foster children. (The internally oriented individual believes that reinforcements follow as a consequence of his own behavior, while conversely, the externally oriented individual believes that reinforcements are controlled by forces independent of his behavior). For example, Wiehe (1987) compared the attributional orientations of foster and home-reared adolescents using The Nowicki-Strickland Locus of Control Scale. Wiehe found data suggesting that female foster-teens were significantly more external in their attributions of control than were home-reared counterparts. No significant differences were found with male adolescent subjects. McIntyre, Lounsbury, Berntson and Steel (1988) further elaborated this notion in their study of elementary school-aged foster children. In comparing the responses to the Tasks of

Emotional Development test (a picture projective assessment measure) of home reared and foster children, the authors found evidence suggesting that the foster child seems to perceive his/her experiences in the world and his behavior as being determined by external events rather than as being able to influence the course of his own life. They described this perspective, an "external locus of control," as one in which work has no bearing on success; unpleasant experiences are tolerated and pleasant opportunities are exploited. Although it has been shown in previous studies that lower levels of IQ as well as lower socioeconomic status are associated with an external attributional orientation and foster populations have higher proportions of lower IQ and low socioeconomic status individuals than the normative population, McIntyre (1991) controlled for both of these variables and found that the externality among foster teens is not simply a function of lower IQ and/or financial status. Judging from these studies, it seems that external locus of control may be another significant characteristic that distinguishes foster populations from those of home-reared children.

Generally speaking, foster children tend to have a more extensive history with uncontrollable, externally inflicted emotional hardship and trauma than do their home-reared peers. According to data gathered in a study by Timberlake and Verdieck (1987) eighty-five percent of children enter foster care as a result of family dysfunction: physical illness of parent (30%); mental illness of mother (15%); abuse (10%); and family problems of drug/alcohol addiction, incompetence, arrest and desertion (30%) (Timberlake & Verdieck, 1987). Unfortunately, the

very act of placement is in itself an uncontrollable emotional disruption that is unique to the lives of foster children and involves a significant level of instability and trauma. For example, it has been documented through the collection of demographic data that most children who remain in foster care will experience multiple placements (Rest & Watson, 1984; Fanshel & Shinn, 1978). Other studies have documented that the average child reaching legal maturity in agency care will have had an average of four different foster homes (Allison, 1984). Based on interviews with foster-teens, Allison (1984) reported that often the child is given no advanced warning as to the change in foster setting and is not given the opportunity to negotiate circumstances surrounding the placement change. It is quite likely that these experiences inherent to foster status have a profound effect on foster adolescents' experience of the world and may contribute to the teens' difficulty in dealing with frustration, feelings of helplessness and in issues of self-control.

Studies done on foster children seem to confirm that issues of control and feelings of frustration, regardless of their etiology, are especially salient to this population. For instance, Timberlake & Verdieck (1987) surveyed foster parents to gain a sense of the personality profiles of sampled foster adolescents. They used a half-hour structured telephone interview as well as a 41 item psychosocial functioning inventory. The psychosocial functioning inventory used in the study divided items according to eight conceptual dimensions considered to be assets to the child's adjustment. The absence of items noted as assets by foster parents connotes personal vulnerabilities and deficits in psychosocial functioning that are

likely to interfere with the child's ability to function well and to benefit from foster-care experiences. Almost two-fifths of the adolescents under study were reported to display more difficulty with accepting things not going their way and in coping with failure than any other psychosocial challenge. This seems to suggest that the psychosocial deficits often cited by the foster parents amount to poor responses to obstacles or to frustrating events. It should be noted, however, that the results of this study are based on foster-parents' reports. It is unclear if foster adolescents are consciously experiencing aversive behavioral and emotional reactions to frustration in the same manner that their foster parents perceive them to. Furthermore, this study failed to take into account psychopathology among the foster children studied. It is possible that the difficulties with frustration found in the foster population of adolescents are multifaceted in their etiology and do not simply represent a characteristic found with foster-reared adolescents. Finally, in the absence of home-reared comparison data, it is unclear if the most frequent psychosocial deficits found in the sample studied reflect characteristics associated with foster status or simply characteristics found among most adolescents. In spite of these shortcomings, the research cited seems to imply that 40% of the foster adolescents studied have significant difficulty responding appropriately to frustration. Although indirect in nature, studies done on foster adolescents seem to suggest that issues of self-control and frustration may be of particular importance to foster populations and be quite worthy of further study.

From the review of the literature examining psychosocial characteristics of foster children it has been demonstrated that foster children may often display characteristics such as immature ego development, poor impulse control and external attributional orientation, and have often had limited experience with self-effectance and control in their lives. These separately identified characteristics are not only interesting in that they seem to reflect a general "syndrome" of feelings concerning frustration and self-effectance in foster children, but are also interesting in that the empirical literature on non-foster populations and theoretical literature suggests that these phenomena are quite possibly interrelated. More specifically, the cited attributes influence response to and experience of frustration in non-foster populations.

Frustration Responses in Non-Foster Populations

Although there is a scarcity of studies concerning frustration found on the adolescent population or on foster-teens, there is a fair amount of research done on adults and young adults linking the response to and experience of frustration, attributional orientation and level of ego development. Among the findings in this literature it has been suggested that subjects external in their locus of control may tend to respond to frustrating obstacles less constructively than do internal peers. For example, Butterfield (1964) used a self-report measure of subjects' claims about their reactions to frustration. The results of his study suggest that the more internal a subject is, the more he reacts to frustration in a constructive manner while the

more external a subject is the more he reacts maladaptively. Likewise, Williams and Vantress (1969) separated 235 introductory psychology students into internals and externals as defined by Rotter's Internal-External Scale and measured hostility and aggression using the Buss-Durkee Hostility Inventory. They found that the externally oriented individuals scored significantly higher than the internally oriented individuals on the resentment, verbal aggression, and irritability cubicle of the Buss-Durkee Scale. Similarly, Sadowski and Wenzel (1982) found that externals reported greater hostility and aggression than did internals. Brisset and Nowicki (1973) also found that internals reacted more constructively to frustration than did externals. Specifically, the data indicated that when frustration arises, internals claim to strive more than do externals, are more likely than externals to respond to frustration with increased effort, and that in comparison to externals, internals report fewer overall interfering tendencies.

Studies of adults in the area of Industrial/Organizational Psychology have also examined the relationship between attributional orientation, aggression, and the amount of "organizational frustration" present in a given company. These studies have found attributional orientation to be a major determining factor in the aggressive response to frustration. For example, Storms and Spector (1987) found that the frequency for sabotage behavior appeared to be a joint function of both locus of control and frustration as it was the frustrated external subjects who tended to engage in sabotage. Frustrated internals were not likely to display destructive behavior. Externals, however, report a greater incidence of sabotage, aggression,

and withdrawal during periods of frustration. Taylor and Walton (1971) theorized from their case-study investigation of industrial sabotage that one of the primary causes of destruction of facilities in corporations was an assertion of control by the workers. They proposed that destruction or mutilation of objects in the work environment may be attempts to reduce tension and frustration. Because externals do not believe that they can effect the environment they are more prone to feel out of control and consequently more apt to behave aggressively.

Judging from a survey of the literature concerning frustration, attributional orientation may play an important role in the experience and report of frustration as well as in the response to frustration. Weiner (1985) has theorized from his literature review and investigation of frustration and locus of control that internal-external attributional orientation may contribute to the intensity of feelings of frustration once individuals are confronted with goal obstacles. He suggested that adult internals are more involved in their personal life endeavors as a result of their expectations of control and success, and are hence more consciously sensitive to feelings of disappointment and frustration when confronted with obstacles or failure than are externals. Furthermore, feelings of frustration seemed to be more frequently reported by internals than externals. Mikulincer (1988) studied this phenomena by examining subjects' reactions to failure. He found that frustration following a single failure and depression following four failures were mainly recorded among internal attributors. External attributors responded to both large and small numbers of failures with weaker affective reactions. Likewise,

Butterfield (1964), in discussing the locus of control construct, made the noteworthy suggestion that externals may generally regard obstacles as "insurmountable" in comparison to internals, who regard them as generally "surmountable" since they believe that they control reinforcements. Based on this assumption, internals may experience and report more frustration in the face of obstacles than do externals as a result of their having higher expectations of control and success than externals. Although it seems clear from a survey of the literature that attributional style, response to objectively frustrating events and the experience of frustration may be interrelated, no study to date has examined all three variables together and attempted to articulate clearly how these elements interact with each other. Furthermore, other researchers have cited different variables responsible for an individual's response to and experience of frustration that are separate and unrelated to locus of control.

Some researchers, for instance, have explained individual differences in response to frustration as a function of emotional maturity. Dubey and Joshi (1985), for example, compared the responses of 144 adolescents to The Rosenzweig Picture Frustration Test to those of 158 young adults. Findings from this study suggest that during adolescence there is a predictable display of overtly expressed aggression and hostility in response to frustration as well as blame-oriented responses as the teenager goes through a period of identity seeking and rebellion against authority. The predominant response patterns of young adult subjects differed from those of adolescent subjects, however, with an increase in

problem-solving behaviors as the individual matured physically and psychologically, and was able to find alternative outlets for hostile aggression. Similarly, Rosenzweig and Braun (1970) indirectly documented the effects of maturation on response to frustration by examining sex differences found among responses to The Rosenzweig Picture Frustration Test. In this study, using 224 tenth and twelfth grade students as subjects, it was found that males were significantly more extraggressive and blame-oriented than females. Females were significantly more likely either to turn their aggression inward towards themselves, deny their feelings of aggression completely, or to focus their energy towards a solution of the problem inherent in the frustration. Sex differences have also been revealed in the normative data collected for the adolescent form of the Rosenzweig Picture Frustration Test (Rosenzweig, 1970). In this study males from ages 12-14.5 offered significantly higher extraggressive and lower intraggressive responses than did females of similar ages. Furthermore, girls, in contrast to boys, showed a significant increase in problem solution behavior and aggression-denial from early to late adolescence. What is interesting about these findings is that these sex differences are only maintained through age nineteen. Rosenzweig explained this phenomenon by noting the maturational differences present between males and females throughout adolescence. The fact that girls mature physically and psychologically faster than boys may enable them to find alternative outlets for their hostile aggression and to better inhibit their impulses sooner than boys do. Likewise, Loevinger (1966) and Loevinger and Wessler (1970) have theorized that individuals characterized by

lower levels of ego development have more difficulty controlling their impulses than do more mature individuals. It may be expected, then, that less ego mature individuals would have increased difficulty coping adaptively to frustrating obstacles. Although these studies seem to imply that an individual's ability for impulse control may be a significant contributing factor when considering adaptation to frustration, these studies consider only maturational differences and fail to examine individual differences within age cohorts. With this present deficit in the empirical literature, it is unclear whether the differences found in response to frustrating situations are age-related or are actually related to impulse control. Presently there is much need for a controlled study directly investigating the relationship between level of ego development and response to frustration.

Pertinent Concepts from Theories of Psychosocial Development in Adolescence

The contributions of many psychoanalytic theorists raise the possibility that an individual's adaptation to increased amounts of frustration is in many ways influenced by his or her prior experiences during childhood. One such contribution was made by Berkowitz (1988). He maintained that frustrations can give rise to an instigation to aggression, even when the thwartings are not illegitimate or due to another's controllable misdeed, if the frustrating obstacle is powerful enough to trigger other memories of more painful events. Berkowitz theorized that it is not frustration, per se, that produces the inclination to hostile aggression, but negative affect. The mere presence of a stimulus associated with strong negative affect can

lead to stronger attacks than otherwise would have occurred. Berkowitz uses the example of handicapped individuals who are associated in the minds of others with pain and suffering. Frustration from them is apt to evoke hostile reaction from others because of their aversive associations in our mind. Based on Berkowitz's hypothesis, for foster teens, the experience of frustration during adolescence may likely trigger unpleasant feelings originating from painful and uncontrollable losses in the past, and result in rage and aggressive behavior.

A similar contribution was made by Burland (1980). He noted that, "Current psychoanalytic perspectives on destructiveness say that rather than simply reflecting an innate, biological aspect of human nature, such as inherent sadism or 'death instinct,' destructiveness results instead from the accumulation of rage secondary to frustration early in life" (p. 55). Burland has indeed remarked upon the intense, driven, destructive play displayed by foster children. He commented that, "foster children often leave behind them a trail of wreckage, including broken foster placements and social workers" (p. 56). Given foster-teens' history with frustration, it would follow that small frustrations would seem magnified and result in feelings of rage and aggression.

Although foster teens may react to barriers and obstacles more destructively and therefore notably, psychoanalytic theory and practice also suggest that foster teens may not report feelings of frustration (Burland, 1980). Burland noted an unusual amount of apathy present in foster populations in comparison to their home-reared peers. He commented that foster children often do not share their feelings

with the external world and that this style may be used as a means of protection and distancing. Burland's observations suggest, then, that foster teens may report little emotional frustration in response to obstacles. Building on Burland's theory, it may be that for foster teens the conscious recognition and articulation of feelings of frustration during adolescence may trigger residual emotions originating from earlier traumas that are exceedingly overwhelming for the individual. These feelings may be even too painful for the teens to tolerate and hence often the foster teen may unconsciously defend against these feelings and avoid the awareness and articulation of the difficulties he/she may be attempting to struggle with.

Although differing in explanation, the psychoanalytic literature seems to converge with empirical research examining foster-adolescents and frustration. Like the empirical literature, psychoanalytic theorists suggest that foster teens will respond less adaptively to frustration as a consequence of negative past experiences with barriers and goal obstacles, and will report less feelings of discomfort in the face of frustrating obstacles in attempts to avoid the acknowledgement of painful affect, than will home-reared populations. This body of literature, however, identifies a teen's history with barriers as a determining variable regulating a teen's report of and response to frustrating obstacles. To date no study has compared two populations differing as completely in their past experiences with control as do foster and home-reared adolescents in order to explore the importance of this variable and its interactive effects.

In light of the research on non-foster populations, it seems of crucial importance to further study the variables involved in the response to barriers and experience of frustration as well as to compare home-reared and foster adolescents with regard to this issue. There seems to be much confusion about the variables associated with an adolescent's response to obstacles and frustration experience and how they may be interrelated. Because foster adolescents consistently display many of the characteristics thought to be related to frustration in non-foster populations, this comparison will clarify the variables involved in an adolescent's response to frustration and how these variables might influence each other, and will provide a more definitive differentiation between groups on variables such as attributional orientation, levels of ego development, and past experiences with control.

Summary Comments

From what is known about frustration and psychosocial characteristics of foster-adolescents, it seems likely that foster-teens are less adept at responding to frustration adaptively. The literature examining psychosocial characteristics in foster populations have described foster children as emotionally immature, externally oriented and as having histories fraught with uncontrollable emotional trauma. The literature examining frustration in non-foster populations of adults and young adults has isolated these same personality factors as contributions to maladaptive response to frustration. More specifically, it has been suggested within this literature that individuals with lower levels of ego development will respond to

frustration less adaptively (Rosenzweig, 1970). It has also been suggested in this literature that internal attributors report a greater incidence of frustrating emotions but respond to obstacles more adaptively than do externals (Butterfield, 1964; Weiner, 1985). Finally, psychoanalytic theorists imply that individuals who have been traumatized early in life by experiences over which they had no control may respond less adaptively to the frustration inherent in adolescence as a result of the overwhelming and painful emotions associated with feelings of helplessness. These theorists also suggest that adolescents who have been traumatized in such a manner will attempt to avoid feelings of frustration and may, as a result, not report and acknowledge feelings of frustration when asked. As one can see, within the body of research concerning frustration there are conflicting opinions about which of these variables is most important in determining an adolescent's response to obstacles and experience of frustration.

Judging from the literature review, there is a great deal of theoretical confusion concerning the factors determining a teen's healthy adjustment to adolescent frustration. Researchers focusing on locus of control are describing a cognitive construct that is only a small part of an individual's psychological profile. Other theorists seem only to be focusing on the emotional aspects of personality, maturity, and past history. It is quite possible that all of these factors may add to an adolescent's response to frustration and that these variables may even influence each other. To date no study has examined all of the aforementioned factors together in studying frustration, nor has a study compared two groups that differ so

completely on these factors as do foster and home-reared adolescents. This research is aimed toward broadening the theoretical understanding of frustration during adolescence. It addresses the experience of frustration (emotional response to obstacles) and the response to frustration (response to barriers and obstacles). Additionally, this study may produce data that will further the understanding of populations, such as foster teens, that have unusually high levels of frustration in their life, and help to better articulate and treat the issues salient to this group.

The hypotheses of this study are as follows:

- (1) HYPOTHESIS: External locus of control and past experience with uncontrollable emotional injury are each independently associated with adolescents' experiences of frustration in the face of frustrating events.

PREDICTION A: There is a relationship between an adolescent's report of frustration and external attributional orientation such that externals will report less experience of frustration in the face of obstacles than will internals.

PREDICTION B: Foster teens will report experiencing less frustration than will home-reared teens.

- (2) HYPOTHESIS: External locus of control, immature ego development, and past experience with uncontrollable emotional injury are each independently associated with adolescents' aggressive, blame-oriented responses to frustrating events.

PREDICTION A: There is a relationship between response to frustrating events and external locus of control such that adolescents with an external locus of control will respond to obstacles with a higher percentage of extraggressive (hostile, blame-oriented) responses on the Rosenzweig Picture Frustration Test.

PREDICTION B: Lower levels of ego-development in adolescents will be associated with high percentages of blame-oriented, hostile extraggressive responses to frustration on the Rosenzweig Picture Frustration Test.

PREDICTION C: Foster adolescents will manifest more extraggressive responses to frustration than will home-reared adolescents on the Rosenzweig Picture Frustration Test.

CHAPTER II

METHOD

Subjects

Home-reared sample:

Data on home-reared subjects were available in archival form. For this study these data were used as the home-reared comparison group. The home-reared data used in this study were generated by subjects who were high-school students enrolled in psychology classes in the fall of 1990. Schools had been chosen for the generally low socioeconomic status of their students. There were 54 home-reared subjects that were used in this study, 17 boys and 37 girls. The mean age for the subjects was 17.3. Ages ranged from 15 years to 18 years. The majority of these subjects were white. Adolescents enrolled in the classes were eligible to participate and none received payment or incentive for their participation.

Foster sample:

Fifty foster children between the ages of 13 and 18 inclusive were used as subjects in this study. The mean age was 16.1 in the foster sample. The majority of subjects used for this study were children in foster care under the auspices of Region II-A of the Tennessee Department of Human Services and all subjects were placed in foster homes within a 50 mile radius of the University of Tennessee, Knoxville campus. Ninety percent of the foster subjects were white. Excluded were

children with severe handicaps that preclude use of the study instruments. Subjects were recruited from among those for whom the Tennessee Foster Project provides psychological adjustment screenings as a service to Knox County Juvenile Court and Region II-A of the Division of Human Services.

Measures

The following instruments were administered:

- (a) The Nowicki-Strickland Children's Locus of Control Scale (Nowicki & Strickland, 1973) was group administered to home reared subjects and was individually administered to foster teens; it was scored for externality. This measure is a 40 item "yes-no" self-report questionnaire measuring the subject's external attributional orientation (EX-LOC). This measure has been shown to be both reliable and valid (Nowicki & Strickland, 1973).
- (b) In order to test the amount of frustration experienced by the individual a frustration report measure devised by Derryberry and Rothbart-Klevjord (1988) was used to measure consciously experienced frustration (EMO-FRUS); it was group administered to home-reared subjects and individually administered to foster teens. This measure is a 15 item "true-false" questionnaire composed of questions describing frustrating situations. The questions inquire whether the subject usually manifests feelings of frustration when in these situations during real life experiences.

The reliability of this measure is 0.69 and the mean item-scale correlation is 0.49 (Derryberry & Rothbart-Klevjord, 1988).

- (c) The Rosenzweig Picture Frustration Test for adolescents (Rosenzweig, 1945) was group administered to the home-reared sample and was individually administered to the foster sample; it was used to provide a measure of "direction of aggression" and "type of aggression" in response to obstacles. The Rosenzweig Picture Frustration Test is a semi-projective device consisting of a series of 24 cartoon-like pictures, each depicting two figures involved in a commonly occurring, socially frustrating situation. The figure on the left of each item is shown making a statement which either frustrates the figure on the right or points out an already existing obstacle. The subject is instructed to examine the item and to insert in the empty balloon above the figure on the right the response which first comes to mind as being made by the right-hand (frustrated) figure.

Rosenzweig identifies two aspects of each response, type and direction of aggression. There are three types of aggression; obstacle-dominance (OB-DOM), in which the presence or the nature of the barrier occasioning the frustration is insisted upon in the response, ego-defense (EGO-DEF), in which the protection of the subject's ego predominates and need-persistence (NEED-PER), in which the resolution of the frustration despite the obstacle is pursued. The three directions of aggression are extraggression (EX-AGG), in which aggression is turned against the environment,

intraggression (INTRA-AGG), in which the subject turns aggression against himself; and immagression (IM-AGG), in which aggression is "turned off"-- avoided in overt expression -- and the frustrating situation is described as insignificant, unavoidable or likely to be ameliorated by just waiting or conforming. These two aspects of each response are combined in a 3 X 3 matrix, yielding 9 composite categories with 3 component categories falling under each type and direction of aggression. The three component categories falling under the category of OB-DOM are extrapeditive (ex-ped), in which the presence of the frustration obstacle is insistently pointed out, intropeditive (intro-ped), in which the frustration obstacle is construed as not being frustrating or even as in some way beneficial, or, in some instances, the subject emphasizes the extent of his embarrassment at being involved in instigating another's frustration and impeditive (im-ped) in which the obstacle in the frustrating situation is minimized almost to the point of denying its existence. The three component categories falling under the category of EGO-DEF are extrapunitive (ex-pun), in which blame, hostility, etc. are turned against some person or thing in the environment, intropunitive (intro-pun), in which blame, censure, etc. are directed by the subject upon himself and impunitive (im-pun) in which blame for the frustration is evaded altogether, the situation being regarded as unavoidable, in particular, the "frustration" individual is absolved. The three component categories falling under the composite category NEED-PER are

extrapersistive (ex-per) in which a solution for the frustrating situation is emphatically expected of someone else, intropersistive (intro-per) in which amends are offered by the subject, usually from a sense of guilt, to solve the problem and impersistive (im-per) in which the expression is given to the hope that time or normally expected circumstances will bring about a solution of the problem; patience and conformity are characteristic.

Likewise, the three component categories included in the composite category of EX-AGG direction of aggression are ex-ped, ex-pun and ex-per. The three component categories included in the composite category INTRA-AGG are intro-ped, intro-pun, and intro-per. The three component categories falling under the composite category of IM-AGG are im-ped, im-pun, and im-per. A summary and definition of the composite category variables as well as the component category variables is provided in Appendix A. The composite category EX-AGG and the corresponding component categories associated with EX-AGG were used to measure destructive, hostile reactions to frustration. The test-retest reliability correlations of the adolescent form of the Rosenzweig Picture Frustration Test are as follows: EX-AGG=0.79; INTRA-AGG=0.86; IM-AGG=0.67; OB-DOM=0.30; EGO-DEF=0.43; NEED-PER=0.52 (Rosenzweig, S., Ludwig, D.J. & Adelman, S., 1975). Research shows that the Rosenzweig Picture Frustration Test is a sufficiently valid assessment measure as well (Rosenzweig, 1978; Rosenzweig & Adelman, 1977). Here three independent scorers had scored each

home-reared protocol individually. Discrepancies in scoring were resolved later either by group discussion or by recognizing the score given by two of the three scorers. Protocols for the foster sample were scored by two separate scorers with a reliability coefficient of 62% *exact* agreement. This agreement rate is consistent with that of the test-developers (Clark, Flemming and Rosenzweig, 1947). Discrepancies were resolved by using the scores of the more experienced rater.

- (d) The Washington University Sentence Completion Test for boys (Form 2-77) and for girls (Form 2-77a) was group administered to the home-reared sample and was individually administered to each foster child and scored for level of ego-development (EGO-DEV). The subject's general ego functioning level (total protocol score) is derived from the pattern of scores across the items. Evidence for the reliability and validity of the instrument is provided by Loevinger (1979; 1985) and Hauser (1976). All protocols were scored by one of two separate raters. A random sample comprised of protocols from 15 boys and 15 girls was used to determine reliability. A 73% exact agreement rate was found for the male protocols, an 87% exact agreement rate was found for the female subjects, and for the total sample chosen, raters were found to be in exact agreement 80% of the time. This is consistent with the reliability ratings obtained and suggested by Loevinger (1979; 1985).

- (e) The Child Behavior Checklist was individually administered to each foster parent and serves as a control measure for the level of psychological adjustment in the foster sample. Clinical cut-off scores established by Achenbach and Edelbrock (1983) are used to determine disordered status (CLINSTAT). Evidence for the reliability and validity of this measure can be found in The Child Behavior Checklist Manual (Achenbach & Edelbrock, 1983).
- (f) The Peabody Picture Vocabulary Test-Revised (PPVT-R) was group administered to the home-reared sample and was individually administered to each foster-teen; it provides a measure of verbal IQ (VERB-IQ). This is used as a control variable with the entire sample of subjects. This measure has been shown to be both reliable and valid (Dunn & Dunn, 1981).

Procedure

Archival data from home-reared comparison subjects had been collected in conjunction with local high-school psychology classes. Class time used for test administration and data collection was arranged with each teacher who agreed to cooperate with the study. Data were collected on two separate days and all measures were group administered. File cards with assigned numbers were handed out to each member of the class for the purposes of data identification. Although the investigator returned at a later date (after all data were collected) to explain the

purposes of the study and the measures used, the subjects were ignorant of the research questions during data collection.

Data from foster adolescents and their foster parents were collected individually from each subject who agreed to the voluntary aspects of the study and gave informed consent. Data were collected in the foster child's home and administered in one session. The foster adolescents were ignorant of the research question during data collection.

The hypotheses of this study are as follows:

- (1) HYPOTHESIS: External locus of control and past experience with uncontrollable emotional injury are each independently associated with adolescents' experiences of frustration in the face of frustrating events.

PREDICTION A: There is a relationship between an adolescent's report of frustration and external attributional orientation such that externals will report less experience of frustration in the face of obstacles than will internals.

PREDICTION B: Foster teens will report experiencing less frustration than will home-reared teens.

- (2) HYPOTHESIS: External locus of control, immature ego development, and past experience with uncontrollable emotional injury are each independently associated with adolescents' aggressive, blame-oriented responses to frustrating events.

PREDICTION A: There is a relationship between response to frustration and external locus of control such that adolescents with an external locus of control will respond to frustration with a higher percentage of extraggressive (hostile, blame-oriented) responses on the Rosenzweig Picture Frustration Test.

PREDICTION B: Lower levels of ego-development in adolescents will be associated with high percentages of blame-oriented, hostile extraggressive responses to frustration on the Rosenzweig Picture Frustration Test.

PREDICTION C: Foster adolescents will manifest more extraggressive responses to frustration than will home-reared adolescents on the Rosenzweig Picture Frustration Test.

CHAPTER III

RESULTS

Preliminary Analyses

Based on previous research it was expected that locus of control and level of ego-development would significantly differ between family status groups. More specifically, it was expected that foster adolescents would be significantly more external and have a significantly lower level of ego-development than would the home-reared sample. An analysis of covariance was used to test these hypotheses with age and Verbal IQ being used as covariants since the home-reared sample was significantly older ($t = -5.09$; $df = 61.5$ unequal variance; $p = 0.01$) than the foster sample and had significantly higher scores on the Verbal IQ test ($t = -2.30$; $df = 1,88.1$; $p = 0.02$). In neither group was there a significant zero-order correlation between age and Verbal IQ. There was, however, a significant difference between the correlations of these two variables for the two groups ($F = 12.32$; $df = 2,101$; $p = 0.01$). These findings suggested that it would be important to control for age, for Verbal IQ and for their divergent relationships in the two groups. There was no significant main effect found for family status with regard to locus of control ($F = 1.10$; $df = 1,96$; $p = 0.15$ 1-tailed) or with level of ego-development ($F = 0.09$; $df = 1,96$; $p = 0.39$, 1-tailed).

Preliminary analyses revealed a significant correlation between the Frustration-Report measure used in this study and four questions designed by the

researcher to be specifically relevant to the lives of adolescents ($r=.366$; $df = 102$; $p=.0001$). This finding supports the validity of using the frustration-report measure with adolescents and hence it can be considered an adequate measure for use in this study.

Preliminary analyses revealed no gender distribution differences between the foster and home-reared sample, but the home-reared sample was significantly older ($t = -5.09$; $df = 61.5$ unequal variances; $p < .01$) and had significantly higher scores on the Verbal IQ test ($t = -2.30$; $df = 88.1$ unequal variances; $p < .05$). Correlational analyses also revealed several significant relationships among age, Verbal IQ, and a number of the dependent variables (see Table 1) for which it was necessary to control in order to test the hypotheses. In neither the foster nor the home-reared group was there a significant zero-order correlation between Age and Verbal IQ. There was, however, a significant difference between the correlations of these two variables for the two groups ($F = 12.32$; $df = 2, 101$; $p < .01$). These preliminary findings suggested that in all tests of the hypotheses it would be important to control for age, for Verbal IQ, and for their divergent relationships in the two groups. Additionally, preliminary analyses indicated frequent substantial and/or significant multi-collinearity between the variables. Because the hypotheses in this study were about *unique* interactions, all possible first-order interactions in addition to the second-order interaction of family status and Verbal IQ were included in the model statements. Except where family status is part of these interactions, the interactions function only as "controls" in the tests of hypotheses

TABLE 1
CORRELATION TABLE FOR FOCAL VARIABLES

VARIABLES	FOSTER	HOME-REARED	ALL SUBJECTS
Age X	.245	-.113	.167
Age X EX-LOC	-.198	-.055	-.210*
Age X	.430**	.173	.345**
Age X VERB-IQ	.085	-.159	.129
Age X EX-AGG	.077	.030	.072
EMO-FRUS X	-.135	.045	-.068
EMO-FRUS X	-.138	-.300*	-.203*
EMO-FRUS X	.065	-.309*	-.067
EMO-FRUS X	.378**	.055	.245**
EX-LOC X	-.482**	-.392**	-.450**
EX-LOC X	-.394**	-.261	-.365**
EX-LOC X	.025	.136	.059
EGO-DEV X	.357**	.122	.273**
EGO-DEV X	-.140	-.366**	-.219*
CLINSTAT X	-.152	n.a.	n.a.
CLINSTAT X	.235	n.a.	n.a.
CLINSTAT X	-.217	n.a.	n.a.
CLINSTAT X	.068	n.a.	n.a.
CLINSTAT X	-.015	n.a.	n.a.

* $p \leq 0.05$

** $p \leq 0.01$

about unique associations between variables. In the case of family status, identification of differences between the partial correlations of one variable with another is of potential value for understanding psychological functioning of foster adolescents.

Experience of Frustration

It was predicted that there would be a relationship between the report of frustration and external locus of control and family status in that both of these variables would be a significant, independent contributing factor with regard to an adolescent's experience of frustration. A summary of the findings of the analyses of covariance on experience of frustration is presented in Tables 2, 3 and 4.

Hypothesis 1A:

There is a relationship between the experience of frustration and external attributional orientation such that externals will report less experience of frustration in the face of obstacles than will internals.

The relationship between external locus of control and Frustration-Report scale differences was initially tested using a zero order correlation (shown in Table 1) and was not significant ($r = -.068$; $df = 102$; n.s.). This relationship was further investigated using analysis of co-variance (shown in Table 2). In addition to age and Verbal IQ, family status and level of ego development were also used as covariants because previous research suggests that these variables may contribute to

TABLE 2

ANALYSIS OF COVARIANCE SUMMARY TABLE - EXPERIENCE OF FRUSTRATION

Source	Degrees of Freedom	F Value	p Value 2-tailed	p Value 1-tailed
Family Type	1	3.82	.05	.03
EGO-DEV	1	< 1.00	n.s.	n.s.
EX-LOC	1	2.27	n.s.	.07
Age	1	2.59	n.s.	.06
VERB-IQ	1	1.03	n.s.	n.s.
EX-AGG	1	3.90	.05	.03
Family Type X EGO-DEV	1	< 1.00	n.s.	n.s.
Family Type X Age	1	3.07	.08	.04
Family Type X VERB-IQ	1	2.73	.10	.05
Family Type X EX-LOC	1	2.20	n.s.	.07
EGO-DEV X Age	1	< 1.00	n.s.	n.s.
EGO-DEV X VERB-IQ	1	< 1.00	n.s.	n.s.
EGO-DEV X EX-LOC	1	< 1.00	n.s.	n.s.
Age X VERB-IQ	1	1.31	n.s.	n.s.
Age X EX-LOC	1	< 1.00	n.s.	n.s.
EX-LOC X VERB-IQ	1	6.82	.01	.01
Family Type X EX-AGG	1	< 1.00	n.s.	n.s.
EGO-DEV X EX-AGG	1	< 1.00	n.s.	n.s.
EX-LOC X EX-AGG	1	< 1.00	n.s.	n.s.
Age X EX-AGG	1	5.44	.02	.01
VERB-IQ X EX-AGG	1	< 1.00	n.s.	n.s.
Family Type X Age X VERB-IQ	1	2.32	n.s.	n.s.

TABLE 3

**ANALYSIS OF COVARIANCE SUMMARY TABLE EXCLUDING
BEHAVIORALLY DISORDERED SUBJECTS
EXPERIENCE OF FRUSTRATION**

Source	Degrees of Freedom	F Value	p Value 2-tailed	p Value 1-tailed
Family Type	1	3.59	.06	.03
EGO-DEV	1	< 1.00	n.s.	n.s.
EX-LOC	1	< 1.00	n.s.	n.s.
Age	1	1.99	n.s.	.08
VERB-IQ	1	< 1.00	n.s.	n.s.
EX-AGG	1	2.26	n.s.	.07
Family Type X EGO-DEV	1	< 1.00	n.s.	n.s.
Family Type X AGE	1	3.11	.08	.04
Family Type X VERB-IQ	1	2.49	n.s.	.06
Family Type X EX-LOC	1	< 1.00	n.s.	n.s.
EGO-DEV X AGE	1	< 1.00	n.s.	n.s.
EGO-DEV X VERB-IQ	1	< 1.00	n.s.	n.s.
EGO-DEV X EX-LOC	1	< 1.00	n.s.	n.s.
Age X VERB-IQ	1	< 1.00	n.s.	n.s.
Age X EX-LOC	1	< 1.00	n.s.	n.s.
EX-LOC X VERB-IQ	1	1.98	n.s.	.08
Family Type X EX-AGG	1	< 1.00	n.s.	n.s.
EGO-DEV X EX-AGG	1	< 1.00	n.s.	n.s.
EX-LOC X EX-AGG	1	< 1.00	n.s.	n.s.
Age X EX-AGG	1	2.35	n.s.	.07
VERB-IQ X EX-AGG	1	< 1.00	n.s.	n.s.
Family Type X Age X VERB-IQ	1	2.03	n.s.	.08

TABLE 4

**ANALYSIS OF COVARIANCE SUMMARY TABLE - SURFACE LEVEL
PROFILE OF THE FOSTER CHILD
EXPERIENCE OF FRUSTRATION**

Source	Degrees of Freedom	F Value	p value 2-tailed	p value 1-tailed
Age	1	< 1.00	n.s.	n.s.
Family Type	1	2.01	n.s.	.08
Age X Family Type	1	1.96	n.s.	.09

an adolescent's report of frustration. Because of a significant correlation between extraggressive responses on the Rosenzweig Picture Frustration Test and Frustration-Report scores ($r = .245$; $df = 102$; $p = .01$), extraggressive scores on the Rosenzweig Picture Frustration Test were also used as a covariant. All first-order interaction effects were controlled for as well as the second-order interaction of age, Verbal IQ, and family status. A trend towards a significant partial correlation was found between external locus of control and the report of frustration in the predicted direction ($F = 2.27$; $df = 1,81$; $p = .07$, 1-tailed). This effect may be a result of there being more behaviorally disordered subjects in the foster sample, however, since when the behaviorally disordered subjects were omitted from the foster sample (see Table 3) the partial correlation was not found to be significant ($F = .96$; $df = 1,60$; n.s.).

Hypothesis 1B:

Foster teens experience less frustration than home-reared teens.

Frustration-Report scale differences between family status groups were initially tested using analysis of covariance with only age and the first-order interaction effect of age and family status used as covariants (shown in Table 4). This was done in order to obtain a surface level profile of the "average foster child." A trend toward significance in the predicted direction was obtained using this model ($F = 2.01$; $df = 1,100$; $p = .08$, 1-tailed). Frustration-Report scale differences between family status groups were further tested using both age and Verbal IQ scores as covariants (see Table 2). In addition to age and Verbal IQ scores, external locus of control scores and ego development scores were also used as covariants because previous research suggests that these variables may contribute to an adolescent's report of frustration. Extraggressive responses on the Rosenzweig Picture Frustration Test were used as a covariant as well, as a result of there being a significant correlation between extraggressive scores and Frustration-Report scores ($r = .245$; $df = 102$; $p = .01$). All first-order interaction effects were controlled as well as the second-order interaction of age, Verbal IQ, and family status. When all covariants were included there was a significant family status group effect in the predicted direction ($F = 3.82$; $df = 1,81$; $p = .03$, 1-tailed). This finding was upheld when behaviorally disordered subjects were omitted from the foster sample ($F = 3.59$; $df = 1,60$; $p = .03$, 1-tailed) in order to ensure that the results were not a product of there being more behaviorally disordered subjects in the foster

sample than in the home-reared sample. Foster teens, then, were found to report less experience of frustration (see Table 3).

Response to Frustration

It was predicted that there would be a relationship between response to frustrating obstacles and external locus of control, ego development, and family status in that each of these variables would be a significant, independent contributing factor with regard to an adolescent's aggressive, blame-oriented response to frustrating situations. A summary of the findings of the analyses of covariance on response to frustration is presented in Tables 5, 6 and 7.

Hypothesis 2A:

There is a relationship between response to obstacles and external locus of control such that adolescents with an external locus of control will respond to frustrating barriers with a higher percentage of extraggressive (hostile, blame-oriented) responses.

A zero-order correlation between external locus of control and extraggressive responses on the Rosenzweig Picture Frustration Test showed no significant relationship between these two variables (see Table 1) ($r = .059$; $df = 102$; n.s.). This relationship was further investigated using analysis of covariance (shown in Table 5). In addition to age and verbal IQ, family status and level of ego development were also used as covariants because previous research suggests that these variables may contribute to an adolescent's response to frustration. Because

TABLE 5

**ANALYSIS OF COVARIANCE SUMMARY TABLE - EXTRAGGRESSIVE
RESPONSE TO FRUSTRATION**

Source	Degrees of Freedom	F Value	p Value 2-tailed	p Value 1-tailed
Family Type	1	< 1.00	n.s.	n.s.
EGO-DEV	1	3.96	.05	.03
EX-LOC	1	1.37	n.s.	n.s.
Age	1	< 1.00	n.s.	n.s.
VERB-IQ	1	< 1.00	n.s.	n.s.
EMO-FRUS	1	5.17	.03	.02
Family Type X EGO-DEV	1	< 1.00	n.s.	n.s.
Family Type X Age	1	< 1.00	n.s.	n.s.
Family Type X VERB-IQ	1	< 1.00	n.s.	.07
Family Type X EX-LOC	1	2.14	n.s.	n.s.
EGO-DEV X Age	1	4.47	.04	.02
EGO-DEV X VERB-IQ	1	< 1.00	n.s.	n.s.
EGO-DEV X EX-LOC	1	< 1.00	n.s.	n.s.
Age X VERB-IQ	1	< 1.00	n.s.	n.s.
EX-LOC X Age	1	< 1.00	n.s.	n.s.
EX-LOC X VERB-IQ	1	2.78	.10	.05
Family Type X EMO-FRUS	1	< 1.00	n.s.	n.s.
EGO-DEV X EMO-FRUS	1	< 1.00	n.s.	n.s.
EX-LOC X EMO-FRUS	1	< 1.00	n.s.	n.s.
Age X EMO-FRUS	1	4.01	.05	.03
VERB-IQ X EMO-FRUS	1	< 1.00	n.s.	n.s.
Family Type X Age X VERB-IQ	1	< 1.00	n.s.	n.s.

TABLE 6

**ANALYSIS OF COVARIANCE SUMMARY TABLE EXCLUDING
BEHAVIORALLY DISORDERED SUBJECTS
EXTRAGGRESSIVE RESPONSE TO FRUSTRATION**

Source	Degrees of Freedom	F Value	p Value 2-tailed	p Value 1-tailed
Family Type	1	< 1.00	n.s.	n.s.
EGO-DEV	1	1.96	n.s.	.08
EX-LOC	1	< 1.00	n.s.	n.s.
Age	1	< 1.00	n.s.	n.s.
VERB-IQ	1	< 1.00	n.s.	n.s.
EMO-FRUS	1	2.29	n.s.	.07
Family Type X EGO-DEV	1	< 1.00	n.s.	n.s.
Family Type X AGE	1	< 1.00	n.s.	n.s.
Family Type X VERB-IQ	1	< 1.00	n.s.	n.s.
Family Type X EX-LOC	1	1.78	n.s.	.09
EGO-DEV X AGE	1	3.16	.08	.04
EGO-DEV X VERB-IQ	1	< 1.00	n.s.	n.s.
EGO-DEV X EX-LOC	1	< 1.00	n.s.	n.s.
Age X VERB-IQ	1	< 1.00	n.s.	n.s.
Age X EX-LOC	1	< 1.00	n.s.	n.s.
EX-LOC X VERB-IQ	1	2.41	n.s.	.06
Family Type X EMO-FRUS	1	< 1.00	n.s.	n.s.
EGO-DEV X EMO-FRUS	1	< 1.00	n.s.	n.s.
EX-LOC X EMO-FRUS	1	< 1.00	n.s.	n.s.
Age X EMO-FRUS	1	2.02	n.s.	.08
VERB-IQ X EMO-FRUS	1	< 1.00	n.s.	n.s.
Family Type X Age X VERB-IQ	1	< 1.00	n.s.	n.s.

TABLE 7

**ANALYSIS OF COVARIANCE SUMMARY TABLE - SURFACE LEVEL
PROFILE OF THE FOSTER CHILD
EXTRAGGRESSIVE RESPONSE TO FRUSTRATION**

Source	Degrees of Freedom	F Value	p value 2-tailed	p value 1-tailed
Age	1	< 1.00	n.s.	n.s.
Family Type	1	< 1.00	n.s.	n.s.
Age X Family Type	1	< 1.00	n.s.	n.s.

of a significant correlation between extraggressive responses on the Rosenzweig Picture Frustration Test and Frustration-Report scores ($r = .245$; $df = 102$; $p = .01$), Frustration-Report scale scores were also used as a covariant. All first-order interaction effects were controlled as well as the second-order interaction of age, Verbal IQ, and family status. No significant locus of control group effects were found with regard to an adolescent's response to frustration ($F = 1.37$; $df = 1,81$; n.s.) even when behaviorally disordered subjects were omitted from the foster sample ($F < 1.00$; $df = 1,60$; n.s.) (see Table 6).

Hypothesis 2B:

Low ego-development is associated with high percentages of blame-oriented, hostile extraggressive responses to frustrating obstacles.

A zero-order correlation was performed initially to test this hypothesis (see Table 1). There was a significant correlation found between ego development and Extraggressive responses on the Rosenzweig Picture Frustration Test in the predicted direction ($r = -.219$; $df = 102$; $p = .03$). Additional analyses investigating this relationship were performed using analysis of covariance (see Table 5). In addition to age and verbal IQ, family status and locus of control scores were also used as covariants because previous research suggests that these variables may contribute to an adolescent's response to frustration. Because of a significant correlation between extraggressive responses on the Rosenzweig Picture Frustration Test and Frustration-Report scores ($r = .245$; $df = 102$; $p = .01$), Frustration-Report scores were also used as a covariant. All first-order interaction effects were controlled as well as the second-order interaction of age, Verbal IQ, and family status. There was a significant partial correlation found between level of ego development and extraggressive responses on the Rosenzweig Picture Frustration Test in the predicted direction ($F = 3.96$; $df = 1,81$; $p = .03$, 1-tailed) with subjects making fewer blame-oriented, hostile responses to frustration as they scored in the higher ranges of ego-development. To ensure that these results were not influenced by the higher proportion of behaviorally disordered subjects in the foster sample, disordered subjects were omitted from the foster sample and the analysis of covariance was repeated (shown in Table 6). Without the behaviorally disordered subjects a trend towards significance was found between

ego-development and Extraggressive responses on the Rosenzweig ($F = 1.96$; $df = 1,60$; $p = .08$, 1-tailed) in the predicted direction.

Hypothesis 2C:

Foster adolescents manifest more extraggressive responses to frustrating obstacles than home-reared adolescents.

Frustration response differences between family status groups were initially tested using analysis of covariance with only age and the first-order interaction effect of age and family status used as covariants (shown in Table 7). This was done in order to obtain a surface level profile of the "average foster child." No significant results were obtained ($F < 1.00$; $df = 1,100$; n.s.). An additional analysis of covariance was used to further test for effects due to family status and extraggressive responses to frustration, with the variables age, Verbal IQ, locus of control, ego-development, and Frustration-Report scores used as covariants (shown in Table 5). Locus of control and ego-development were used as covariants because previous research suggests that these variables may contribute to an adolescent's response to frustration. Because of a significant correlation between Frustration-Report Scale scores and extraggressive responses on the Rosenzweig Picture Frustration Test ($r = .245$; $df = 102$; $p = .01$), Frustration-Report scores were also used as a covariant. All first-order interaction effects were controlled as well as the second-order interactions of age, Verbal IQ, and family status. Family status did not have a significant main effect with regard to extraggressive response on the Rosenzweig Picture Frustration Test ($F < 1.00$; $df = 1,81$; n.s.). Likewise,

no significant results were found when behaviorally disordered subjects were omitted from the foster sample ($F < 1.00$; $df = 1,60$; n.s.) (see Table 6).

Exploratory Analyses

Relationships between the key subject variables, EMO-FRUS, EGO-DEV, and EX-LOC and responses in the face of obstacles (in addition to the EX-AGG directional responses) were explored. Table 8 shows the significant zero-order correlations found between subject variables and both the component responses and the five additional composite responses. Also indicated on Table 8 are partial correlations that were significant when all subjects were included in the multiple regression analyses or when clinically disordered foster subjects were omitted for those analyses.

Most noteworthy in Table 8 is that many zero-order correlations were not retained when contributions of multiple variables were considered simultaneously. At the same time, three relationships emerged only when multiple variables were considered: a significant positive relationship between EGO-DEV and im-pun, a significant negative relationship between EMO-FRUS and intro-pun and a significant negative relationship between EX-LOC and ex-per. The first two relationships mentioned were upheld with and without clinically disordered foster subjects included in the sample while the relationship between EX-LOC and ex-per was found only when clinically disordered foster subjects were included in the sample. A significant negative relationship between EMO-FRUS and ex-per was found only

TABLE 8

SIGNIFICANT CORRELATIONS BETWEEN KEY SUBJECT VARIABLES
AND RESPONSES TO FRUSTRATION

	EMO-FRUS	EGO-DEV	EX-LOC
INTRA-AGG	n.s.	n.s.	n.s.
IM-AGG	-.270**	.238*a	n.s.
OB-DOM	n.s.	n.s.	n.s.
EGO-DEF	n.s.	-.209	n.s.
NEED-PER	-.219*	.301**	n.s.
ex-ped	.202*a	n.s.	n.s.
intro-ped	n.s.	n.s.	n.s.
im-ped	n.s.	n.s.	n.s.
ex-pun	.201*ab	-.269**	n.s.
intro-pun	n.s.	n.s.	n.s.
im-pun	-.226*	n.s.	-.227*
ex-per	n.s.	n.s.	n.s.
intro-per	n.s.	.231*	n.s.
im-per	-.230*	n.s.	n.s.

* = $p \leq .05$ ** = $p \leq .01$ a = The partial correlation was significant ($p \leq .05$) with all subjects included in the multiple regression analysis.b = The partial correlation was significant ($p \leq .05$) with the clinically disordered foster subjects omitted from the multiple regression analysis.

when multiple variables were considered and when clinically disordered subjects were excluded from the sample.

Table 8 also shows that while all subject variables proved to be related, at the zero-order level, with some response in the face of obstacles, EMO-FRUS and EGO-DEV were related to a greater diversity of responses than was EX-LOC even at this level. In multiple regression, effects of EX-LOC were minimal. EMO-FRUS proved to have diverse significant partial correlations whereas EGO-DEV had a significant partial correlation with im-pun and IM-AGG.

Post-Hoc Analyses

The data were explored to determine to what extent they conformed to those of previous studies reporting family status group differences with regard to ego-development and locus of control. Additional factors influencing the report of frustration and response to obstacles were also investigated. The narrow age-range of subjects found within the home-reared sample of this study prevented age-comparative analyses regarding family status group differences and ego-development and family status group differences and locus of control from being performed. Additional analyses revealed findings linking Verbal IQ with frustration report.

As shown in Table 9, the present foster and home-reared samples were found to be somewhat older than those in previous studies reporting family status group differences with regard to ego-development and locus of control (McIntyre,

TABLE 9
MEAN AGES FOR SAMPLES OF ADOLESCENTS BY FAMILY TYPE

<i>Family Status and Locus of Control Studies</i>		
	Foster	Home-Reared
McIntyre, 1991	14 years, 8 months	15 years, 3 months
Wiehe, 1987	14 years, 9 months	14 years, 0 months
Roberts	17 years, 3 months	16 years, 1 month

<i>Family Status and Ego Development Studies</i>		
	Foster	Home-reared
McIntyre, 1991	15 years, 10 months	16 years, 2 months
Roberts	17 years, 3 months	16 years, 1 month

1991; Wiehe, 1987). It appears that the absence of foster and home-reared group differences with regard to measures of external locus of control and immature ego-development may have been due to age differences across studies. Because home-reared data were collected from an age-homogeneous group of senior high-school students, the foster and home-reared samples could not be divided into younger and older subsamples so that the younger sample was comparable to those of McIntyre (1991) and Wiehe (1987). Hence, age-comparable analyses were not able to be performed and the influence of age on family status group differences with regard to ego-development and locus of control could not be determined in this study.

Findings obtained in this study also suggest that Verbal IQ is a significant contributing factor with regard to the report of frustration. Analyses performed in this study revealed a significant inverse correlation between Verb-IQ and EMO-FRUS scores among the home-reared portion of the sample ($r = -.309$; $df = 52$; $p = .02$). The relationship between Verb-IQ and EMO-FRUS was further investigated using a post-hoc analysis of co-variance with only home-reared subjects included in the sample in order to control for the effects due to foster status differences with regard to the report of frustration (see Table 10). The analysis of co-variance model previously used and referred to was also used in this analysis. A trend towards a significant partial correlation was found between Verb-IQ and the EMO-FRUS with more intelligent subjects reporting less frustration ($F = 3.25$; $df = 1,38$; $p = .08$).

The relationship between EX-LOC and EMO-FRUS was further investigated using a post-hoc analysis of covariance with only foster subjects included in the sample. The analysis of covariance model previously used and referred to was also used in this analysis except that an additional covariant of CLINSTAT was added to the model in order to account for effects due to psychopathology without subject exclusion (see Table 11). A significant partial correlation was found between EX-LOC and EMO-FRUS in the predicted direction with more external subjects reporting less frustration ($F = 2.78$; $df = 1,28$; $p = .05$, 1-tailed).

TABLE 10

**ANALYSIS OF COVARIANCE SUMMARY TABLE - EXPERIENCE OF
FRUSTRATION WITH ONLY HOME-REARED SUBJECTS**

Source	Degrees of Freedom	F Value	p Value 2-tailed
EGO-DEV	1	< 1.00	n.s.
EX-LOC	1	1.24	n.s.
Age	1	< 1.00	n.s.
VERB-IQ	1	3.25	.08
EX-AGG	1	1.01	n.s.
EGO-DEV X Age	1	< 1.00	n.s.
EGO-DEV X VERB-IQ	1	< 1.00	n.s.
EGO-DEV X EX-LOC	1	< 1.00	n.s.
Age X VERB-IQ	1	1.56	n.s.
Age X EX-LOC	1	< 1.00	n.s.
EX-LOC X VERB-IQ	1	3.60	.07
EGO-DEV X EX-AGG	1	< 1.00	n.s.
EX-LOC X EX-AGG	1	1.43	n.s.
Age X EX-AGG	1	1.94	n.s.
VERB-IQ X EX-AGG	1	1.23	n.s.

TABLE 11

**ANALYSIS OF COVARIANCE SUMMARY TABLE WITH
PSYCHOPATHOLOGY AS A CO-VARIANT INCLUDING ONLY FOSTER
SUBJECTS EXPERIENCE OF FRUSTRATION**

Source	Degrees of Freedom	F Value	p Value 1-tailed
EGO-DEV	1	< 1.00	n.s.
EX-LOC	1	2.78	.05
Age	1	< 1.00	n.s.
VERB-IQ	1	< 1.00	n.s.
EX-AGG	1	< 1.00	n.s.
Psychopathology	1	< 1.00	n.s.
EGO-DEV X AGE	1	< 1.00	n.s.
EGO-DEV X	1	< 1.00	n.s.
EGO-DEV X	1	< 1.00	n.s.
Age X VERB-IQ	1	< 1.00	n.s.
Age X EX-LOC	1	1.30	n.s.
EX-LOC X	1	1.37	n.s.
EGO-DEV X	1	< 1.00	n.s.
EX-LOC X	1	< 1.00	n.s.
Age X EX-AGG	1	< 1.00	n.s.
VERB-IQ X	1	< 1.00	n.s.
EGO-DEV X	1	< 1.00	n.s.
EX-LOC X	1	< 1.00	n.s.
Age X	1	< 1.00	n.s.
VERB-IQ X	1	< 1.00	n.s.
EX-AGG X	1	1.47	n.s.

Summary

Foster teens reported less emotional frustration experience in the face of obstacles than home-reared teens. The tendency for external attributions of control to be related to reporting less frustration was not supported when behaviorally disordered subjects were omitted from the foster sample. No other variables were found to be related to the report of frustration experience.

A significant relationship was found between a teen's level of ego development and their corresponding response to frustrating obstacles with subjects making fewer blame-oriented, hostile responses to frustrating events as they scored in the higher ranges of ego-development. This finding remained a trend when disordered subjects were omitted from the foster sample. No other significant results regarding response to frustration were found.

While all subject variables proved to be related, at the zero-order level, with some type of frustration -- response only three relationships emerged as consistent when multiple variables were considered; a positive relationship between EGO-DEV and ex-pun, EMO-FRUS and ex-ped and EMO-FRUS and ex-pun. Only the latter relationship was upheld when clinically disordered subjects were omitted from the foster sample.

The narrow age-range of subjects found within the home-reared sample of this study prevented age-comparative analyses regarding family status group differences and ego-development and family status group differences and locus of control from being performed. Analyses revealed evidence suggesting that higher

levels of Verbal IQ may be linked with lower levels of frustration report in the face of obstacles. Analyses also revealed evidence that EX-LOC may be linked with lower levels of EMO-FRUS when clinically disordered subjects are included in the analysis and CLINSTAT is used as a covariant.

CHAPTER IV

DISCUSSION

Foster Status and Frustration

Family status differences with regard to the report of frustration and to the hostile, blame-oriented response to obstacles were predicted, in part, on the basis of literature suggesting that foster teens were shown to have lower levels of ego development as well as higher levels of external attributional orientation. Studies done on adult, home-reared populations suggest that these variables may be associated with lower levels of frustration report and higher levels of aggressive, blame-oriented, hostile response to frustrating obstacles. This study yielded findings supporting family status group differences with regard to the report of frustration, but did not find support for foster and home-reared teen differences regarding response to frustrating events.

This study obtained results supporting the hypothesis that foster adolescents report less experience of frustration than their home-reared peers. When confounding variables such as locus of control and ego development were not included as covariants in the analysis, this relationship was found to be a trend in the predicted direction. When all confounding variables were controlled, however, the relationship between foster status and the report of frustration proved to be unique and significant. These findings suggest that it is not the variables characteristic of foster status that influence a foster teen's report of frustration, but

the unique experiences associated with being in foster care. This finding is interesting since family status differences with regard to the experience and report of frustration were, in part, predicted on the basis of literature suggesting that foster teens were shown to have higher levels of external attributional orientation (McIntyre, 1991; Wiehe, 1987). Studies done on adult, home-reared populations suggest that external locus of control may be associated with lower levels of frustration report (Mikulincer, 1988). This study did not reveal significant differences between foster and home-reared populations with regard to attributional orientation, and locus of control was not found to be associated with frustration report. Although findings with regard to family status and frustration report support the predictions made in this study, the unique, significant contribution of family status with regard to the report of frustration is interesting. Although it may be as Burland (1980) suggested, that foster populations simply do not report their affective experience to others, it is also possible that "affective anesthesia" (emotional numbness and/or apathy) may be the mediating variable associated with family status differences in frustration report. This variable has not been recognized or investigated in previous literature.

Affective anesthesia can be viewed as a defensive style of coping aimed towards the avoidance of painful affect associated with past trauma and emotional wounding. Family status differences with regard to the report of frustration may be due, in part, to the emotional numbing or "affective anesthesia" experienced by foster teens investigated in this study. As discussed in the introduction, there is

much literature that speaks to the unpredictable and often traumatic nature of the lives of foster children (Timberlake & Verdieck, 1987; Rest & Watson, 1984; Allison, 1984). Populations, such as foster children, who have withstood serious emotional injury in the past, may attempt to emotionally disconnect themselves from painful affect in order to avoid feelings associated with earlier traumas that are too overwhelming and painful for the individual to comfortably tolerate. Foster teens may not be reporting equal levels of frustration in the face of obstacles to that of their home-reared peers, therefore, because they are emotionally unresponsive to affectively loaded life occurrences, especially those involving affect such as frustration with which they have had prior negative experience. Fairbairn (1943) theorizes that children may develop mechanisms to deal with difficulty from frustration. A child may defensively internalize "badness" rather than tolerate the existence of frustrating and painful elements in the world. The price of outer security is having troubling bad objects within; in other words, the world is good but now the child is "bad" and feelings of frustration are not experienced. Other research involving individuals diagnosed with Post Traumatic Stress Syndrome have also suggested that individuals may avoid affect in order to suppress painful recollections of traumatic events and to maintain a false sense of control (Jelinek & Williams, 1984). Although most foster children may not be suffering from the full spectrum of PTSD symptomatology, it is possible that their prior experiences with helplessness and emotional instability and injury may render them more likely to respond with some PTSD-like symptoms, such as affective anesthesia . This

defensive style, therefore, would preclude foster children from emotionally investing themselves in situations where they may feel vulnerable and would explain why foster children report less feelings of discomfort in the face of obstacles than their home-reared peers.

Although emotional numbing may serve as a defensive means by which an individual can keep himself/herself affectively invulnerable, the psychological and emotional cost of this defensive style has been extensively discussed (Abraham, 1911; Rapaport, 1985). As one author described, individuals prone to affective anesthesia equate emotional responsiveness with pain, fear, terror and a loss of control. When the individual distances himself/herself from feelings states, however, he/she is left feeling numb, apathetic and complains of feeling empty, void of meaning or purpose, unable to set goals or direction in pursuit of dreams and often finds relationships to be unsatisfying (Jelinek & Williams, 1984). Additionally, the effect of emotional numbing is not specific to negative affect, but includes all feelings (including positive ones) that the individual may experience thereby impeding psychological healing and obscuring any chance of contentment or positive life occurrences from being enjoyed and appreciated. Although a means of protection for foster children, psychological numbing may have serious implications for the psychological well-being of this particular population and should be researched and addressed accordingly.

The results found in this study may have also been influenced by foster children's distrust of authority figures, especially those representing the Department

of Human Services. Foster teens have often been disappointed and hurt by important adults in their past (Timberlake & Verdieck, 1987) and have also been subject to the unpredictable and often disruptive nature of the foster care system. The average child in foster care is likely to have experienced multiple placements (Rest & Watson, 1984; Fanshel & Shinn, 1978) and often the child is given no advanced warning as to the change in foster setting and is not given the opportunity to negotiate circumstances surrounding the placement change (Allison, 1984). All data concerning the frustration level of foster-teens studied were collected by an investigator associated with DHS. Foster children may have been reluctant to openly disclose their feelings to an adult authority figure in this position for fear of being placed in another foster home, labeled as maladjusted or because of any number of other fears associated with prior life experiences. These factors may be important to consider when interpreting the relatively depressed level of frustration report scores displayed by foster teens.

It should be noted that foster teens reported significantly less frustration than their home-reared peers even when behaviorally disordered subjects were omitted from the sample implying that the negative effects of distrust and/or affective anesthesia and apathy may be present in foster teens even in the absence of obvious behavioral disorders. These results argue for a foster care system that encourages teens to process their feelings and address issues of trust and/or emotional apathy as part of routine care and treatment of foster adolescents. Adolescents who do not display overt signs of psychopathology may be overlooked within the foster care

system when, in fact, they are not receiving the treatment and care that they may need.

Although there are several possible explanations regarding lower levels of foster frustration-report, the exact nature of this finding is still somewhat unclear. Factors such as affective anesthesia and distrust have not been directly researched with regard to the report of affect and further investigation concerning these factors' influence on the nature and emotional well-being of foster children would serve as a useful contribution to the literature.

This study also hypothesized that foster adolescents would offer a significantly greater number of hostile, blame-oriented responses to frustration than would their home-reared peers. This prediction was not upheld by the results obtained in this study. Findings obtained in this study regarding foster teen frustration response may have been influenced by the absence of family status group differences with regard to ego development and locus of control. Predictions asserted in this study concerning family status and response to frustrating barriers were, in part, based upon previous literature suggesting that foster populations would display lower levels of ego development and significantly higher levels of external locus of control as well as studies done on adult and young adult, home-reared populations suggesting that both immature levels of ego development and external attributional orientation were related to hostile, blame-oriented response to frustration. Family status group differences with regard to locus of control and ego-development, however, were not found in this study possibly explaining the

absence of foster and home-reared group differences with regard to hostile, blame-oriented response to frustration.

In comparing demographic data between studies, it appears that the absence of foster and home-reared group differences with regard to measures of locus of control, ego-development and frustration response may have been due to the fact that subjects used in this study were older than subjects used in previous studies obtaining family status group differences with regard to externality and immature ego-development. This study found results significantly linking ego development and locus of control (factors thought to be related to aggressive response to frustration) with age. The correlations between ego-development and age and between external locus of control and age were much larger in the foster sample than in the home-reared sample, suggesting that foster teens may be more strongly influenced by age-related factors with regard to ego-development and external locus of control than their home-reared peers. Age related factors, therefore, may have dissipated family status group differences on these measures as well as resulting differences with regard to the response to frustrating events because subjects used in this study were older than subjects previously studied. It is conceivable that analyses performed on younger teens would have yielded significant family status group differences with regard to locus of control and ego-development as well as resulting differences regarding aggressive, blame-oriented response to obstacles. This effect might not have been as large as previously expected, however, since locus of control was not shown in this study to be a significant contributor to

adolescent frustration response while level of ego-development was found to be a significant contributor. Given more differentiated groups with regard to ego-development level, possibly obtained with younger subjects, family status group effects with regard to aggressive, blame-oriented response to obstacles may have resulted. This analysis could not be performed in this study, however, because of the narrow ranges of ages present in the home-reared sample. To date, no study has investigated foster and non-foster groups regarding response to barriers across age levels, nor has research been done investigating the relationship between age and either locus of control or ego development within foster populations. More research is needed in order to further clarify findings presented in this study.

Timberlake & Verdick (1987) studied older adolescents comparable in age to our sample and yielded results linking aggressive response to frustration with foster status. The results of that study, however, were based on foster-parent reports which are likely to be biased. Furthermore, that study failed to take into account psychopathology among the foster children studied. It is possible that the difficulties with frustration found in their sample of foster adolescents are a function of clinical disorders known to be prevalent in foster populations (Fanshel & Shinn, 1978; McIntyre & Keesler, 1986). Finally, in the absence of home-reared comparison data it is unclear if results obtained reflect characteristics associated with foster status or simply characteristics found among most adolescents. It is possible that significant results obtained in that study were a function of methodological factors and not foster and home-reared group differences.

In discussing aggressive response to frustrating obstacles, Berkowitz (1988) did not consider the effects of age with regard to response to frustration. It is more likely that the hypotheses presented by this theorist were mainly applicable to and based upon adult, home-reared populations. Although Burland (1980) also noted an increased level of aggression and blame--oriented, hostile responses to obstacles among foster populations, his observations were based on case study examples. It is possible that his observations primarily focused on the more noticeable and more extreme examples found in foster samples and were not applicable to the foster population at large. Furthermore, predictions asserted in this study concerning family status and response to frustration were based, in part, upon previous literature suggesting that foster populations would display lower levels of ego development and significantly higher levels of external locus of control. These assumptions may only be applicable to younger foster teens. More research concerning response to frustration in older, clinical populations seems warranted.

Literature based on adult home-reared populations suggested that foster teens may report less feelings of frustration in the face of obstacles than their home-reared peers and may respond to obstacles in a more aggressive, hostile, blame-oriented manner than home-reared teens. This study revealed findings confirming family status differences with regard to the report of frustration, with foster teens reporting less frustration in the face of obstacles than their home-reared peers. This phenomenon seemed to be associated with the unique experience of being in foster care and not to personality variables related to foster status. Results

obtained in this study did not, however, confirm the hypothesis that foster teens would respond with more hostile, blame-oriented responses to frustration than home-reared peers. This may have been due to the absence of family status group differences with regard to locus of control and ego-development displayed by subjects investigated in this study.

Experience/Report of Frustration

Previous literature investigating the nature of frustration report and experience suggests that locus of control may influence an individual's report of frustration. This study found evidence linking locus of control with frustration report only when elevated levels of external locus of control were included in the sample. This study also found evidence suggesting that factors associated with external locus of control, such as Verbal IQ, may influence the report of frustration.

Findings obtained in this study suggest that Verbal IQ may be a contributing factor with regard to the report of frustration. It is possible that the relationship found between Verbal IQ and frustration report may be a function of brighter subjects having greater intellectual capacity to find solutions to frustrating problems than less intelligent and less resourceful individuals. Obstacles, then, may not be experienced and reported as frustrating for more intelligent subjects because they are bright enough to overcome frustrating circumstances and may, in fact, view obstacles as an enjoyable challenge. Treatment involving individuals having

difficulty coping with feelings of frustration may be best focused towards sharpening problem solving skills thereby decreasing feelings of frustration and possibly increasing the individual's tenacity level. Studies investigating the report and experience of frustration may be most accurately executed by controlling for the effects due to IQ level. Judging from the results found in this study, problem solving abilities may be an important attribute in coping with feelings of frustration adaptively. This factor has not been considered with regard to the experience and report of frustration previously and may be an important mediating factor in determining an individual experience of frustrating obstacles.

This study hypothesized that there would be an inverse relationship between external locus of control and self-reported frustration. Although a trend was found supporting this hypothesis, no statistically significant support was obtained without clinically disordered subjects included in the sample. Evidence obtained in this study seems to suggest that previous research done on adult and young adult populations linking external locus of control with lower levels of reported frustration may have been influenced by confounding variables not controlled for. It is also possible that models applicable to adult, high socioeconomic populations may not be appropriate for low socioeconomic, adolescent populations. Further research seems warranted in order to confirm findings obtained in this study and clarify differences with regard to the experience of frustration between adults and teens and between varying socioeconomic and clinical status groups.

Previous research done on adult and young adult populations linking external locus of control with lower levels of reported frustration may have been influenced by confounding variables not controlled for. For example, Mikulincer (1988) and Weiner (1985) did not control for psychopathology, a factor that has been noted in the literature to be associated with external locus of control (McIntyre, 1991) and may be associated with lower reports and awareness of frustration. Significant locus of control group differences across Frustration Report Scale scores obtained in previous studies may also be attributable to Verbal IQ differences associated with attributional orientation that the authors did not control for. Findings from previous studies linking external locus of control with lower levels of frustration report failed to consider effects associated with Verbal IQ (Mikulincer, 1988). Although Mikulincer (1988) studied only college students, possibly providing a relatively narrow range of IQ scores, there is still enough variation within university student populations with regard to Verbal IQ in order to justify the need for Verbal IQ controls. Results obtained in this study seem to suggest that prior research may have been influenced to a great extent by confounding variables associated with attributional orientation and not by effects uniquely resulting from the influence of locus of control group differences.

Findings from studies reporting an inverse relationship between external locus of control and the report of frustration may only be applicable to groups where extreme external locus of control scores are seen, such as in clinically disordered samples. A large majority of external subjects, including the more

extreme of the external locus of control scores, may have been excluded from this study's sample when controlling for psychopathology, minimizing the existence of clearly delineated locus of control groups and consequently diminishing the locus of control group differences. Effects associated with subject exclusion might possibly explain why a trend towards significance between locus of control groups with regard to the report of frustration was found only when clinically disordered subjects were included in the sample since many authors have noted that externality is often associated with psychopathology (McIntyre, 1991). In our sample, as well, a trend towards significance was found linking external locus of control with clinical psychopathology. When clinically disordered subjects were omitted from analyses the range of locus of control scores decreased from 4-28 to 5-23. Mikulincer's study (1988) linking external locus of control with lower levels of frustration report, did not report the range of locus of control scores found in his sample. When post-hoc analyses were done in this study on only the foster portion of the sample, and psychopathology was used as a covariant, a significant partial correlation was found between external locus of control and the report of frustration in the predicted direction suggesting that predicted locus of control effects may only occur with the inclusion of extremely elevated scores. Future studies may wish to limit subject selection to those not falling within a clinical population when investigating the report of frustration and may wish to control for psychopathology in order to more clearly demonstrate significant effects.

Results of this study seem to question previous findings linking locus of control with the report of frustration, but it is possible that the findings in this study are reflective of the developmental differences between adults and adolescents. For example, the relationship between locus of control and the report of frustration may be irrelevant for adolescents where it is meaningful for adults because externality has been described, in part, as a developmental phenomena as well as a personality attribute (McIntyre, 1991). External teens, then, may be external simply because they have not matured fully and not because they possess a personality characteristic that influences an emotional experience such as frustration. A significant inverse relationship between external locus of control and age was found in our sample supporting this hypothesis. The results obtained in this study may also be attributable to adolescent ambivalence with regard to relationships with caretakers. As Blos explained (1967), the adolescent's striving for independence from his parents is not without some ambivalence, since it not only contains a strong desire for adult freedom and independence simultaneously, but also an unacknowledged wish for childlike dependence, parental protection and fear of loss of security and adult guidance. Adolescents may, therefore, vacillate between displaying longings for dependence with open disclosure of their feelings and wishes for autonomy by withholding information from adult authority figures. Some teens may wish to involve adults in their emotional experience while others harbor a profound distrust of adults. Finally, adolescents may generally report more frustration in the face of obstacles than adults because it is the first time in their lives when they are able to

think abstractly and to introspect (Piaget, 1972). Full development of formal operational thought is not complete until about age fifteen or sixteen and is characterized by the ability to introspect and to think hypothetically at an abstract level. The adolescent may suddenly become cognizant of several alternatives to caretakers' directives and may become reluctant to accept them without question. Furthermore, adolescents are also concerned, for the first time in their lives, with not only the "rules" but also the reasons justifying the rules, and are usually prepared to debate these reasons and compare them with ones chosen by themselves and by their peers. This developmental phenomenon may be more salient to a teen and may overshadow locus of control effects with regard to the report of frustration in the face of obstacles during adolescence. Given the age differences between subjects across studies it is difficult to ascertain effects due to developmental differences and effects due to attributional style. Models of frustration experience appropriate for adult populations may not be applicable to adolescent populations. Future research may want to control for these factors and/or delve further into the experience of frustration among adolescents in comparison to that of adults.

Findings in this study may also be due to differences between the socioeconomic level of this study's subjects in comparison to subjects investigated in previous research linking external locus of control with lower levels of frustration report. Teens investigated in this study were primarily from low income families. Mikuliner (1988) based his research on undergraduate university students who are usually affiliated with educated, financially secure families. Low socioeconomic

status individuals have had less opportunities with control in their lives because of financially imposed limits in comparison to individuals of high socioeconomic status. Adolescents from poor families may not feel as frustrated in the face of obstacle than high socioeconomic status peers because they have accepted a certain level of helplessness in their lives that comes with being financially deprived. It is also possible that because of educational differences between socioeconomic status levels, adolescents from families lower in socioeconomic status may not be as likely to introspect, verbally express themselves and articulate feeling states than adolescents from more financially secure and educated families. It seems quite possible that socioeconomic status may effect one's experience and report of frustration. This factor may override attributional orientation concerns within impoverished populations and may have obscured locus of control differences with regard to the report of frustration in this study.

Differences in findings with regard to the relationship between locus of control and the report of frustration across studies may be due to the influence of confounding variables, such as Verbal IQ and psychopathology, as well as to differences between subjects across studies rather than to effects associated with attributional orientation. The relationship between external locus of control and lower levels of experienced frustration may only be salient for clinical populations where the extreme levels of external attributional orientation are often found. Even if all confounding variables had been controlled in previous studies, it is possible that models appropriate for high socioeconomic status adults may not be applicable

to low socioeconomic status adolescents. Future research may be best performed with controls for Verbal IQ and psychopathology, and developmental differences regarding the report of frustration should be further explored.

Literature based on adult, home-reared populations suggests that the experience and report of frustration may be influenced by locus of control. No study to date has investigated all of the factors that may influence the report of frustration together. This study did not find evidence for a significant relationship between locus of control and report of frustration. This study did find, however, evidence suggesting that Verbal IQ, a factor thought to be related to locus of control, may be a contributing factor to the report of frustration. These findings seem to imply that previous findings linking locus of control with frustration report may have been influenced by confounding variables that were not controlled for. It is also possible that frustration report models applicable to high socioeconomic status adults may not be appropriate for low socioeconomic status adolescents.

Response to Frustration

Previous literature investigating the nature of frustration response suggest that locus of control and ego-development may influence an individual's response to frustration. There is some confusion in the literature, however, concerning which variable is more important with regard to response to frustration. This study found evidence linking immature ego development with extraggressive response to

frustration, but did not find a significant relationship between locus of control and response to frustration.

Results of this study revealed a significant relationship between ego development and extraggressive responses on the Rosenzweig Picture Frustration Test with subjects making fewer blame-oriented, hostile responses to frustrating events as they scored in the higher ranges of ego-development. Without behaviorally disordered subjects included in the sample, only a trend towards significance was found between ego-development and extraggressive responses on the Rosenzweig Picture Frustration Test. This may suggest that emotional wounding may be a factor influencing an adolescent's blame-oriented, hostile, aggressive response to frustration. Clinically disordered teens respond with more extraggression in the face of obstacles than less disordered subjects. Logically, this finding makes sense because psychopathology is in part, defined by "acting out" behavior often including aggression, blame and hostility. Although the behavioral disorders of subjects identified as clinically disordered may have contributed some to aggressive response to frustrating obstacles, the presence of a trend even without behaviorally disordered subjects suggests that this finding is, in part, related to ego-development.

Results supporting the relationship between lower levels of ego development and aggressive, blame-oriented response to obstacles in adolescent populations seem to imply that maladaptive coping styles in response to obstacles may, in part, be due to developmental immaturity. Previous studies investigating response to frustration

have confirmed this hypothesis and have suggested that aggressive response to frustration may be a natural, normal part of adolescence as the teen goes through a period of identity seeking rebellion (Rosenzweig & Braun, 1970; Dubey & Joshi, 1985). Although results obtained in this study did not find a significant relationship between extraggressive response to frustration and age, this may have been due to the relatively narrow range of subject ages included in this study. Clinicians, parents and teachers, then, may want to tolerate certain levels of maladaptive response to frustration and understand it as a healthy means by which a teen attempts to define himself/herself apart from others. Given that frustration response is related to ego-development, hostile, blame-oriented response to frustration may not be indicative of emotional difficulties and cause for concern; in fact, it may be a normal part of developmental growth.

Findings linking frustration response with lower levels of ego development support the notion that inappropriate response to frustration may, in part, be due to problems with impulse control, exploitative behavior, immature ego structures and boundaries and an inadequate and immature means of approaching problem solution. Populations found to be characterized by lower levels of ego development, such as foster children, may have more difficulty coping with obstacles to goal attainment than "normal" populations. This is unfortunate, because, it is usually these populations that are faced with the most frustrating life circumstances. These difficulties are likely to effect the individual's tenacity level and ability to achieve long term goals requiring patience and hard-work. Often this may place

disadvantaged populations in an even more disadvantaged position because intellectual and emotional growth and achievement are, in many respects, contingent upon frustration tolerance and adaptation. Treatment of individuals characterized by abnormally low levels of ego-development may be best focused towards the attainment of frustration tolerance involving mature ego boundaries, impulse control, affect modulation and mature problem solution skills in order to compensate for the difficulties associated with arrested development.

This study did not find support for hypotheses concerning significant locus of control group effects with regard to an adolescent's aggressive, blame-oriented response to frustration. Previous research supporting the notion that external subjects would respond with aggressive, blame-oriented responses in the face of obstacles more than would internals (Storms & Spector, 1987; Brissett & Nowicki, 1973; Sadowski & Wenzel, 1982; Williams & Vantress, 1969), however, did not control for psychopathology, a factor that has been suggested to be associated with both external locus of control and blame-oriented, hostile response to frustration. Psychopathology may contribute to and often be defined by increased levels of aggressive, blame-oriented response to obstacles. Furthermore, many authors have noted that externality is often linked with psychopathology (McIntyre, 1991). In our sample, as well, a significant correlation was found linking external locus of control with clinical psychopathology. In consideration of the information obtained in this study as well as literature linking externality with psychopathology, it seems conceivable that findings revealing significant locus of control group differences

with regard to extraggressive response to frustration (Storms & Spector, 1987; Brissett & Nowicki, 1973) may have been due to factors related to externality, such as psychopathology, and not to factors solely related to attributional orientation.

Studies revealing attributional orientation group effects with regard to response to frustration failed to take into account varying levels of ego development across subjects as well as effects due to psychopathology, a factor that this study controlled for. Results obtained in this study suggest that lower levels of ego development correlate positively with aggressive, blame-oriented response to frustration and that externality is significantly correlated with level of ego development. It is possible, then, that factors related to varying levels of ego-development accounted for the differences in response to frustration which previous studies found between external and internal subjects.

Results of this study seem to contradict previous findings linking locus of control with response to frustration, but it is possible that the findings in this study are reflective of developmental differences between adult subjects investigated in previous research (Brissett & Nowicki, 1973; Storms & Spector, 1987) and adolescents used as subjects in this study. For example, Rosenzweig and Braun (1970) and Dubey Joshi (1985) suggest that aggressive, blame oriented response to frustration may be a natural, normal part of adolescence as the teen goes through a period of identity seeking rebellion. Predominant response patterns of teens change, however, with an increase in problem-solving behavior as the individual matures physically and psychologically and is able to find alternative outlets for

hostile aggression. Results obtained in this study linking ego-development with extraggressive response to frustration seem to support this idea. Effects associated with adolescent rebellion, then, may overshadow attributional orientation effects with regard to extraggressive response to frustration until the individual matures. External locus of control may be a developmental phenomenon associated with adolescence as well as extraggressive response to frustration. The relationship between locus of control and response to frustration may be irrelevant for adolescents where it is meaningful for adults because externality has been described as, in part, a maturational phenomena as well as a personality attribute (McIntyre, 1991). External teens, then, may be external simply because they have not matured fully and not because they possess a personality characteristic capable of influencing affect response. An inverse relationship between external locus of control and ego-development was found from our sample supporting this hypothesis. Given the age differences between subjects across studies it is difficult to ascertain effects due to developmental differences and effects due to attributional style. Models of frustration response appropriate for adult populations may not be applicable to adolescent populations. Future research may want to control for these factors and/or delve further into adolescent frustration response in comparison to adults.

Findings in this study may also be due to differences between the socioeconomic level of this study's subjects in comparison to subjects investigated in previous research linking external locus of control with frustration response (Storms & Spector, 1987; Brissett & Nowicki, 1973; Sadowski & Wenzel, 1982; Williams

& Vantress, 1969). Teens investigated in this study were primarily from low income families. All previous studies investigating frustration response reported findings based on subjects within higher socioeconomic levels. Low socioeconomic status individuals have had less opportunities with control in their lives because of financially imposed limits in comparison to those in higher socioeconomic levels. Adolescents from poor families may not respond as intensely towards obstacles as do high socioeconomic status peers because they have accepted a certain level of helpless in their lives that comes with being financially deprived. Teens from wealthier families may expect to have control over their environment and may attempt to gain control when they do not have it, while less financially endowed teens respond more passively to obstacles. Although this factor did not seem to influence ego development effects with regard to response to frustration, locus of control may not be as powerful of an influence of the response to frustration as is ego-development and may be more easily obscured by confounding variables. It seems quite possible that socioeconomic status may effect one's response to frustration. This factor may override attributional orientation concerns within impoverished populations and may have overshadowed locus of control differences with regard to frustration response in this study.

Differences in findings with regard to the relationship between locus of control and frustration response across studies may be due to the influence of confounding variables, such as ego-development level and psychopathology, as well as to differences between subjects across studies rather than to effects associated

with attributional orientation. Even if all confounding variables had been controlled in previous studies, it is possible that models appropriate for high socioeconomic status adults may not be applicable to low socioeconomic status adolescents. Future research may be best performed with controls for level of ego-development and psychopathology and developmental and socioeconomic differences regarding frustration response should be further explored.

Previous research investigating response to frustration suggest that variables such as locus of control and ego-development may determine an individual's hostile, blame-oriented response to frustration. There is some confusion in the literature, however, concerning which variable is most important in determining frustration response. This study yielded findings linking immature ego-development and possibly psychopathology with aggressive, blame-oriented response to frustration. No significant support was found with regard to the relationship between locus of control and extraggressive response to frustration. Previous findings revealing a relationship between attributional orientation and frustration response may have been influenced by confounding variables not controlled for. Additionally, models of frustration response applicable to high socioeconomic adults may not be appropriate for low socioeconomic adolescents.

Summary

Literature based on adult home-reared populations suggested that foster teens may report less feelings of frustration in the face of obstacles than their home-reared

peers, and may respond to obstacles in a more aggressive, hostile, blame-oriented manner than home-reared teens. This study revealed findings confirming family status differences with regard to the report of frustration, with foster teens reporting less frustration in the face of obstacles than their home-reared peers. This phenomenon seemed to be associated with the unique experience of being in foster care and not to variables related to foster status. Findings may be reflective of foster teens' distrust of authority figures or affective anesthesia aimed towards the avoidance of painful affect associated with past trauma and emotional wounding. Both of these attributes may have serious negative implications with regard to the emotional well-being of foster teens. Results obtained in this study did not confirm the hypothesis that foster teens would respond with more hostile, blame-oriented responses to frustration than home-reared peers but this may have been due to the emotional apathy displayed by foster teens studied or to the absence of family status group differences with regard to locus of control and ego-development displayed by subjects investigated in this study.

Literature based on adult, home-reared populations suggested that the experience and report of frustration may be influenced by locus of control. No study to date has investigated all of the factors that may influence report of frustration together. This study found evidence for a significant relationship between locus of control and report of frustration only when the elevated external locus of control scores were included in the sample. This study also found evidence suggesting that Verbal IQ, a factor thought to be related to locus of control, may be

a contributor with regard to lower levels of reported frustration. Previous findings linking locus of control with frustration report may have been influenced by confounding variables that were not controlled for. It is further possible that frustration report models applicable to high socioeconomic adults may not be appropriate for low socioeconomic adolescents.

Previous research investigating response to frustration suggested that variables such as locus of control and ego development may determine an individual's hostile, blame-oriented response to frustration. There is some confusion in the literature, however, concerning which variable is more important in determining frustration response. This study yielded findings linking immature ego-development with aggressive, blame-oriented response to frustration. Although not directly shown, this study also offered evidence suggesting that psychopathology may be associated with or even defined by aggressive, blame-oriented response to frustration. Further research regarding psychopathology and response to frustration seems warranted. No significant support was found with regard to the relationship between locus of control and extraggressive response to frustration. Previous findings revealing a relationship between attributional orientation and frustration response may have been influenced by confounding variables. Additionally, models of frustration response applicable to high socioeconomic status adults may not be appropriate for low socioeconomic status adolescents.

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APPENDIX

APPENDIX A

SCORING COMPONENTS OF THE ROSENZWEIG
PICTURE-FRUSTRATION TEST

DIRECTION OF AGGRESSION	TYPE OF AGGRESSION		
	Obstacle-Dominance (OB-DOM)	Ego -Defense (EGO-DEF)	Need-Persistence (NEED-PER)
EX-AGG	ex-ped: The presence of the frustrating obstacle is insistently pointed out.	ex-pun: Blame, hostility, etc., are turned against some person or thing in the environment.	ex-per: A solution for the frustrating situation is emphatically expected of someone else.
INTRA-AGG	intro-ped: The frustrating obstacle is construed as not being frustrating or even as in some way beneficial; or, in some instances, the subject emphasizes the extent of his embarrassment at being involved in instigating another's frustration.	intro-pun: Blame, censure, etc., are directed by the subject upon himself.	intro-per: Amends are offered by the subject, usually from a sense of guilt, to solve the problem.
IM-AGG	im-ped: The obstacle in the frustrating situation is minimized almost to the point of denying its existence.	im-pun: Blame for the frustration is evaded altogether, the situation being regarded as unavoidable; in particular, the "frustrating" individual is absolved.	im-per: Expression is given to the hope that time or normally expected circumstances will bring about a solution of the problem; patience and conformity are characteristic.

VITA

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