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NEGATIVE AFFECT, EXPLANATORY STYLE, AND STRESSFUL
LIFE EVENTS IN AN ELEMENTARY SCHOOL POPULATION

by

DAVID JOHNSTON, MSW

DISSERTATION

Presented to the Faculty of Graduate Studies,

in Partial Fulfillment

of the Requirements

for the Degree of

DOCTOR OF SOCIAL WORK

WILFRID LAURIER UNIVERSITY

1995

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ABSTRACT

The prevalence of childhood depression is largely unknown due to widely discrepant methods, different assessment instruments, varying definitions of childhood depression, and different populations under investigation. Theoretical arguments have been made to suggest that gifted children are a population at risk for emotional and psychological disruption. Specifically, their advanced cognitive abilities are considered an emotional liability that could increase the chances of a depressive episode or even suicide. In addition, there have been theoretical articles to suggest that two correlates of depression are stressful life events and explanatory style. Students who experience more stress in their lives are more likely to be depressed, and those students who hold a pessimistic cognitive style for explaining situational events are also more likely to be depressed.

This present study focused on 178 students in grades 4, 5, and 6 in two elementary public schools in a large urban Canadian city. They were asked to complete three inventories that assessed their negative affect,

explanatory style and stressful life events. Teachers were also asked to comment on each student by completing a rating scale of negative affect.

Overall the results of the study revealed that fourth through sixth grade students reported lower levels of negative affect than reported elsewhere in the literature. Despite theoretical arguments to the contrary, gifted students scored no differently on measures of negative affect or explanatory style. There was a very significant relationship between explanatory style and negative affect and a moderate relationship between stressful life events and negative affect. Teachers were more accurate in identifying students who were not experiencing negative affect than those reporting higher levels of negative affect. Implications for future research and treatment interventions are discussed.

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And finally, Major League Baseball and the National Hockey League provided timely work stoppages that facilitated completion of this project.

"The end of a matter is better than its beginning,
and patience is better than pride."

TABLE OF CONTENTS

Chapter	Page
I. Introduction	1
Relevance of Study to Education	3
Relevance of Study to School Social Work	4
Negative Affect	5
Statement of Problem	7
II. Review of the Literature	9
Negative Affect	9
Conceptual Development	9
Negative Affect in Children	10
Gifted Psychopathology	11
Cognitive Theories of Depression	14
Prevalence of Negative Affect in Children	18
Explanatory Style	20
Theory	20
Research	25
Stressful Life Events	26
Theory	26
Research	28
Summary of Literature Review	30
Definition of Variables	31
Conceptual Definitions	31
Operational Definitions	32
Research Questions	33
Negative Affect	33
Explanatory Style	35
Stressful Life Events	36
III. Methodology	38
Research Design	38
Sample	39
Data Collection	40
Instrumentation	42
The Children's Depression Inventory	43
The Children's Attributional Style Questionnaire	46
The Life Events Questionnaire	48
Teacher Rating Scale	50
Limitations	50

IV.	Results	52
	Description of the Sample	52
	Tests of the Research Questions	56
	Negative Affect	56
	Explanatory Style	64
	Stressful Life Events	70
	Summary	75
V.	Discussion	77
	Overview	77
	Discussion of Findings	77
	Negative Affect	77
	Prevalence of Negative Affect in Gifted and Regular Education Children	77
	Gender and Age Differences in the Reports of Negative Affect	81
	Teacher and Student Self Report of Negative Affect	82
	Explanatory Style	83
	Explanatory Style and Negative Affect	83
	Explanatory Style of Gifted and Regular Education Students	83
	Gender and Age Differences in Explanatory Style	84
	Stressful Life Events	86
	Stressful Life Events and Negative Affect	86
	Stressful Life Events and Explanatory Style	86
	Stressful Life Events, Explanatory Style and Negative Affect	87
	Limitations	88
	Implications	91
	Gifted Education Children	91
	Regular Education Children	91
	Educators	92
	School Social Workers	93
	Future Research	95
VI.	References	98

VII.	Appendixes	119
	Appendix A: Parent Letter	120
	Appendix B: Parental Consent	122
	Appendix C: Student Consent	125
	Appendix D: Thoughts and Feelings Questionnaire ...	127
	Appendix E: Response to Situations Questionnaire ...	133
	Appendix F: Life Events Questionnaire	142
	Appendix G: Teacher Consent	145
	Appendix H: Teacher Rating Scale	147
	Appendix I: Classroom Instructions	149

CHAPTER 1

Introduction

Negative affect in children is a subject that has attracted considerable attention over the past 30 years. However, professionals working with children are left with many questions. These include: How many children experience such a phenomenon? What factors are correlated with negative affect in children? Are some groups more vulnerable to this experience? Are there age, gender or grade differences?

Two main foci form the basis for this study. The first has to do with the general levels of negative affect in elementary school children between the ages of 9 and 12. Negative affect refers to a collection of symptoms including: sadness, dysphoria, energy loss and feelings of worthlessness. Negative affect has been selected to describe this collection of symptoms rather than the adultomorphic term "childhood depression" (a more detailed discussion follows later in this chapter). Within the elementary school population there is a need to understand the similarities and differences that exist within and between regular education and gifted education children. That is, within the regular elementary school aged population, are there differences in the prevalence of negative affect according to age, grade or gender? The same questions are asked of the special education population of the gifted. As well, the differences between these two groups need to be explored in order to determine if one of these groups of children is more vulnerable to the experience of negative affect.

The second focus has to do with the correlates of negative affect; that is, what

other variables coexist with this phenomena in children. Two variables will be examined, explanatory style and stressful life events, to determine if these are related to negative affect in children. These two variables have been selected due to theoretical arguments that they are connected with childhood depression. Explanatory style refers to the internal cognitive pattern that humans use to explain the causes of events in our lives. Seligman (1990) suggests that children who view and interpret life events in a pessimistic way are more likely to experience an episode of depression. Stressful life events represent those situations and occurrences that do not fall within the normal life course for children. These events are viewed as interruptions to the average experience of children. Compas (1987) in a review of the impact of life events on children concludes that stressful life events are significantly correlated to childhood dysfunction (p. 284). If these authors are correct then there is a need to investigate how these two factors alone and together explain the existence of negative affect.

While some research has been undertaken on these topics, this investigation contributes to the theoretical and empirical development in the field in several ways: there is currently little data available on the prevalence of negative affect at these ages, nine to twelve years of age, especially Canadian data; even less is known about differences or similarities that may exist between these identified populations, regular education and special education gifted children; there appear to be few studies using the two raters (self and teacher) as sources of information; and finally the possibility that a pessimistic explanatory style and/or stressful life events coexist with the

experience of childhood negative affect is worthy of exploration in these age groups and with an elementary school population.

Relevance of Study to Education

This study addresses a number of issues of considerable import to the educational community (teachers, social workers, psychologists, etc.) such as: (a) the limited number of investigations report widely discrepant results regarding the prevalence of childhood depression, (b) the number of children who may be emotionally unavailable in a classroom due to the experience of negative affect, (c) the examination of a special education population that is perceived to be vulnerable to negative affect, (d) the impact of stressful life events on the cognitive and emotional areas of a child's life and finally (e) whether the way in which children view events in their personal lives is related to the existence of negative affect.

Information gained in addressing these issues will help educators to better serve students under their care. Some anticipated benefits to educators will be achieved through: (a) increased awareness of the range, severity and prevalence of negative affect in this population, (b) the development of relevant and appropriate curriculum for classroom use, (c) various prevention activities that would lessen the impact of an episode of negative affect, (d) identifying at risk groups in order to develop resources for teachers and parents at the secondary level of prevention and (e) knowledge gained from this present study should prove useful in the development of appropriate clinical services.

Relevance of Study to School Social Work

School social workers are asked to provide counselling, consultation and information to a variety of groups including: students, parents, teachers, administrators and a range of community groups. In addition, they are in an enviable position of being able to conduct research in an environment where this is accepted and often encouraged. There is ready access to large numbers of children encompassing the spectrum of social and mental health problems. Within this context, school social workers are also able to evaluate the effectiveness of their clinical interventions.

The importance of having an accurate and current view on various mental health issues cannot be overstated. Information or approaches based on erroneous and out of date conceptions can be harmful and destructive. The cognitive-behavioural treatment of children and adults by social workers is a fairly new phenomenon with limited published documentation. However, the cognitive-behavioural approach may prove to be an area where school social work could develop programs and expertise. Further, the school social worker is in a unique position to effect change in curriculum as well as to develop classroom based interventions which address the affective or emotional domains. It is expected that the findings of this study will have application to all of these areas.

Negative Affect

In order to avoid confusion with the psychiatric diagnostic classification of depression, the term negative affect has been adopted for this investigation. Negative affect will be used to describe a group of symptoms commonly associated with the term depression, but not with the psychiatric diagnosis of depression. Symptoms of negative affect would include: sadness, dysphoria, energy loss, worthless feelings.

Negative affect is similar to, but should not be confused with, "negative affectivity" as it is used by Wolfe, Finch, Saylor, Blount, Pallmeyer & Carek (1987). They have taken this term from the earlier work of Watson and Clark (1984). Negative affectivity is used to describe a broader construct which includes anxiety and anger. They argue that the strong correlations between these three variables support the idea that it is essentially the same construct. That is, depression, anxiety and anger could be collapsed into a single broad-band construct entitled negative affectivity (Wolfe et al., p. 245). Such a notion mirrors the general internalizing scale of the Achenbach Child Behavior Checklist (Achenbach & Edelbrock, 1983).

Negative affect as used in this current investigation is not identical to "negative affectivity" as it does not include measures of anxiety or anger. In the present study, negative affect closely approximates the notion of depression as it may manifest itself in children. However, negative affect was chosen over the term depression for two reasons.

First, it emphasizes the developmental stage of childhood. As humans develop cognitively and emotionally there is a greater differentiation of ideas and affect

(Cicchetti & Schneider-Rosen, 1984; Guidano & Liotti, 1983; Izard, 1977). Because depression may carry a different meaning in an adult population and because of the growing support for conceptualizing depression differently in children, it is worth highlighting these differences.

Second, during the course of the investigation it became clear that the term depression carried with it considerable negative connotations, both amongst mental health professionals and also with the general population. In the mental health field, professionals tended to identify immediately with the diagnostic classification of depression. This was considered too narrow a definition and one that, in any event, could not be confirmed without medical assessment. In speaking with some parents, they were alarmed with use of the term depression in relation to children. It seemed to be a "severe label" that appeared to raise anxiety with parents. The anxiety could be due to the adult misconception that depression is directly related to suicidal thought and behaviour.

The term negative affect was adopted in response to these concerns. It implies a broader description that is developmentally more appropriate for younger children. This investigation relies on self report and teacher ratings and therefore it is necessary to avoid confusion with the diagnostic label of depression. Mental health professionals and teachers were able to understand what negative affect implied without the connotations that depression seemed to raise. Parents were also more comfortable with negative affect as it didn't cause alarm or evoke feelings of anxiety.

Statement of Problem

Negative affect in children is an area worthy of exploration for a number of reasons. First, alarming and sensational headlines would have us believe that a generation is in the process of self destructing through suicide. The relationship between negative affect and suicide is an obvious one. However, not all depressed individuals complete suicide and conversely, not all suicides are a result of negative affect. Nevertheless, many myths exist regarding suicide. One such myth is the perception that there is an epidemic in adolescent suicide. In fact, the rate of adolescent suicide is the lowest in comparison to any age group following it (Statistics Canada, 1988). A recent Canadian study found that the prevalence of adolescent depression is also lower than expected (Connelly, Johnston, Brown, Mackay, & Blackstock, 1993). This current investigation concentrates on younger children as there is limited research in the area. Furthermore it is necessary to help educational professionals understand the nature and prevalence of such a phenomenon.

Second, professionals working with children and adolescents should be aware of the range, severity and prevalence of mental health problems associated with children of this age. The importance of current, relevant and accurate information cannot be overstated. Children and families can be unnecessarily alarmed by information that is sensationalized, often by well-meaning individuals. On the other hand, behaviour can be trivialized by professionals who describe it as part of "a phase" that the child is going through. A balance is needed whereby accurate information guides the practice and interventions of professionals working with children and their

families.

Third, children may be helped through various prevention activities to lessen the impact of a episode of negative affect. Children who experience negative affect at a young age are likely doing so for the first time. They are often unaware of what this experience is and also what they can do about it. It is essential that both early intervention and prevention activities be in place to help elementary school aged children. It is hoped that this study will identify correlates of negative affect that provide direction within a preventive clinical practice model.

Fourth, while it has been theorized that some groups are at risk for negative affect, there is a need for empirical confirmation. This study will examine two groups of elementary aged students in grades 4, 5, and 6. These two groups are, regular education and gifted education students, have been selected for comparison due to the current view (e.g. Yewchuk & Jobagy, 1993) that gifted children are at risk for psychopathology, especially negative affect (e.g. Willings & Arseneault, 1986). Parents of gifted children are left wondering if the "gifted" label is a blessing or a curse. Many of the reports, articles, and books that present the "gifted at risk" view are written from personal experience or are theoretical in nature. Quite simply there is a need for empirical study to confirm or deny this point of view.

CHAPTER 2

Review of the Literature

Negative Affect

Conceptual Development

The literature in the field of depression identifies three different meaning levels for the term "depression" (Cicchetti and Schneider-Rosen, 1984; Clarizio, 1984; Kovacs, 1989). First, it is identified as a symptom. When used in this way, it refers to those times when people feel "blue", "sad", or "down". At some point most individuals will have experienced these feelings or thoughts.

The second meaning level is that of syndrome. When individuals experience a number or group of symptoms, this is referred to as depressive affect or a depressive behaviour pattern. This syndrome of depression can be identified through self report or structured questionnaires completed by a mental health professional.

Finally, depression can be conceptualized as a disorder. The diagnosis of a depressive disorder is normally done by a medical practitioner and includes the presence of a certain number of symptoms persistent over a specified period of time. The Diagnostic and Statistical Manual (Fourth Edition) serves as a guide for many medical practitioners in differentiating this disorder from others that may share some similar symptomatology.

Reynolds (1985) and Kazdin (1990) suggest that the terms syndrome and disorder can be used interchangeably. In doing so this fails to recognize the different

perspectives that guide the use of these terms. A syndrome refers to a collection of identifiable symptoms which can be used for conducting mental health research and in planning clinical or counselling strategy. On the other hand the diagnosis of depression remains a medical designation which incorporates a disease model and prescription for treatment.

Negative Affect In Children

Childhood depression was rarely discussed in the literature until the 1960's. One group suggested that children were not likely to experience this phenomenon (Rie, 1966; Wolfenstein, 1966), while another group argued that children manifest symptoms such as tantrums, aggressiveness and anxiety in a "masking" display of depression (Bene, 1975; Glaser, 1967; Toolan, 1962).

With the development of the Diagnostic and Statistical Manual III (1980) increasing attention was paid to childhood depression. At the same time researchers suggested that there was no such thing as "masked" depression, and instead argued that children displayed the same "depressive core" as adults (Carlson & Cantwell, 1980; Cytryn, McKnew & Bunney, 1980). Because these concepts found a home predominantly in the cognitive and behavioural schools, they focused on the suggestion that the behavioural and cognitive symptoms found in children reflected those of adults.

The Diagnostic and Statistical Manual IV (1994) continues to view the childhood manifestation of depressive symptomatology as essentially the same as

adults. Of the nine symptoms listed under "Criteria for Major Depressive Episode", two are modified for children (children may evidence irritability instead of depressed mood, and failure to gain weight is substituted for weight loss), while the remaining seven symptoms (diminished interest in activities, sleep disturbance, psychomotor agitation, lack of energy, feelings of worthlessness or guilt, concentration problems, suicidal thoughts) are applied to both children and adults (p. 327).

Negative affect as it applies to children, differs from adult depression, in that it connotes a more global construct, that is less differentiated, and less specific. Children are more "present oriented" (Kovacs, 1989) and appear to lack the depth of adult depression (Ibid). They are also too young to experience the self doubt and self repudiation that accompanies depression in adults (Digdon & Gotlib, 1985). Given that suicidal thought is one symptom in adults, it should be noted that comparatively speaking, suicide is an extremely rare occurrence in children under 12. These arguments suggest that a term such as negative affect may be more appropriate than applying the adult term "depression" to children. For this research study, negative affect will be measured by the Children's Depression Inventory

Gifted Psychopathology

The mental health of gifted individuals is another area where there has been significant development over time. While some early authors considered the gifted to be insulated from emotional disturbance (Terman & Chase, 1920), more recent writers suggest almost the opposite. In a review article, published with the assistance of a

National Health Research and Development Program grant, two Canadian authors begin their examination with these opening words, "gifted children and youth may be particularly vulnerable to developing emotional difficulties because of their exceptional abilities and needs. Common myths regarding gifted individuals as being successful and well-adjusted are harmful, as they lead to emotional and educational neglect" (Yewchuk & Jobagy, 1993). This statement represents clearly the views of many authors in the field of gifted mental health. That is, gifted children are an at risk population for a variety of reasons (Altman, 1983; Bernardo, 1990; Farrell, 1989; Kaiser & Berndt, 1985; Lajoie & Shore, 1981; Leroux, 1986; McCants, 1985; Schauer, 1976; Weisse, 1990; Willings & Arseneault, 1986).

The theoretical arguments supporting an increased incidence of psychopathology among the gifted can be grouped under four headings: cognitive, social, developmental and personal identity. In the cognitive area, a number of authors (Altman, 1983; Leroux, 1986; Schauer, 1976; Weisse, 1990) suggest that the advanced cognitive abilities and the resultant expectations (from parents, teachers, and the children themselves) are a considerable source of stress. It is then argued that this is a factor contributing to emotional instability.

The social area is considered to be problematic for two reasons. First is the notion that due to their advanced cognitive abilities they naturally associate with an older peer group (Altman, 1983) which leads the children having to deal with "older" issues and concerns. Second is the increased conflict in their interaction with the environment because of their "differentness" (Schauer, 1976) and due to their

"tendency to demonstrate dominance, forcefulness, independence and competitiveness" (McCants, 1985, p. 28).

The third area which is seen to add pressure to gifted children is the developmental one. Their early language competence, the earlier onset of developmental stages and their rapid progress through these stages puts them at risk (Altman, 1983). Both the advanced developmental level and the elevated cognitive skills mean that these children deal with issues beyond their range of life experience, and at a rate that may be emotionally disorienting.

The final area identified as problematic for the gifted student is in the development of personal identity. Because of their advanced intellectual abilities they are forced to hide their talents (Schauer, 1976), they have a self-awareness of being different (Altman, 1983), they demonstrate a deeper need to search for the meaning of life (Willings & Arseneault, 1986), and because society favours mediocrity, the gifted get the message that "you are not what is wanted" (Willings & Arseneault, 1986, p. 12). All of these factors reportedly contribute to a negative self opinion and lower self esteem.

With specific reference to negative affect, gifted children are seen to be over-represented in suicide statistics (Lajoie & Shore, 1981) and while depression cannot be seen as the sole explanation for suicidal behaviour, there are suggestions that the gifted may be more prone to depression. Weisse (1990) identifies three main kinds of depression among gifted students. They are: 1. depression that results from trying to live up to external standards; 2. feeling of personal alienation or aloneness; and

3. existential depression that comes as a person considers the universal problems of human existence.

Kaiser and Berndt (1985) postulate the existence of a "success depression" that might be endemic to gifted students. This is a depression that results when students believe that the success that they achieve is due to external factors and the "stress of maintaining that continual success" (Farrell, 1989, p. 136). Kaiser and Berndt (1985) conclude their investigation by saying "either unrealistically high expectations which can never be met, or a belief that their success is due to external or unpredictable factors, may predispose these students to poor self-esteem, loneliness and depression" (p. 76).

This field of gifted psychopathology is rich in the theory that the gifted offer a population at risk for emotional disturbance. While early writers posited that advanced cognitive abilities provided a buffer to the development of emotional problems, more current formulations counter this with almost an opposite view, namely that the gifted are a population at risk.

Cognitive Theories of Depression

Cognitive therapies have exploded upon the scene with considerable impact in the past 30 years. There is a wide variety of theories, treatments and models to choose from. Best known in North America are Ellis and Beck, but of equal importance are the European cognitivists Guidano, Liotti and Mahoney. In many ways it is such a diverse field that to try to reduce it to simple tenets is a difficult task.

However, three central beliefs of the cognitive perspective will be outlined. First, cognitions or thoughts have an effect on human behaviour. Second, these thoughts can be monitored. Third, a change in these cognitions will result in change in a person's behaviour (Dobson & Block, 1988). This belief in the mediating function of cognitions, accessible on the conscious level, is what distinguishes cognitivists from behavioural and psychodynamic thought.

The four dominant cognitive theories of depression are those of Beck (1967), Rehm (1977), Lewinsohn (1974) and Seligman (1975; see also Abramson, Seligman & Teasdale, 1978) . Beck (1967) and Beck, Rush, Shaw & Emery (1979) argue that there are three main factors contributing to depression. They are the cognitive triad, schemas, and cognitive errors. The cognitive triad has to do with negative self evaluation, negative world view and hopelessness in the future. A schema refers to the process of screening and interpreting information that a person receives. Finally, the cognitive errors are negative ways of thinking or reacting to situations, information and events in a person's life.

Rehm's self control model (Rehm, 1977; Rehm & Rokke, 1988) is based on a model developed by Kanfer (1970) that identified "self control as those processes by which an individual alters the probability of a response in the relative absence of immediate external supports" (Rehm, p. 790). According to Rehm's view the depressed person evidences deficits that explain their inability to monitor, evaluate and reinforce their own behaviour.

According to Lewinsohn (1974) people become depressed when they are no longer able to elicit positive reinforcement from their environment. The emphasis for treatment is on the development of social skills which increase the ability of the person to regain positive control over their environment and to summon rewards for themselves.

Seligman (1979, 1990) and others (Abramson, Seligman & Teasdale, 1978; Alloy, Abramson, Metalsky & Hartlage, 1988; Dweck, 1975; Hill & Larson, 1992; Peterson, 1991) argue in favour of a "learned helplessness" or "hopelessness" view of depression. This is a theory that has been revised from its initial formulation (Seligman, 1975) when as a strictly behavioural theory derived from studies on mongrel dogs in a laboratory, motivational, cognitive and emotional deficits were attributed to the subject's inability to control positive responses. However, this theory was not able to account for the breadth (pervasiveness) and length (chronicity) of depressive symptoms as well as the diminished self esteem in individuals experiencing depression (Peterson & Seligman, 1984).

The revised theory addressed these deficits by incorporating attribution theory into the formulation (Abramson, Seligman & Teasdale, 1978). As it stands now, the learned helplessness which the laboratory subjects evidenced is interpreted as depression in humans. This response is now explained in cognitive terms. Attribution theory, as applied to learned helplessness, suggests that when an individual experiences negative events they interpret these events according to three dimensions: personal responsibility (internal or external cause), permanence (stable or unstable) and

breadth (global or specific) (Peterson & Seligman, 1984). These cognitive or attributional interpretations about the event signify the difference between the original and reformulated view of learned helplessness and are seen to address the deficits of the original model. With respect to children, Dweck (1980) found that learned helplessness in the area of academic performance was explained by an attributional style that identified external and uncontrollable factors as being responsible for failure (p. 941).

These cognitive models provide the theoretical backdrop to this current study, specifically the reformulated learned helplessness model with its emphasis on attributional style or as Seligman calls it explanatory style. Unfortunately there is limited social work literature in this area (Barber, 1986; Combs, 1980; Lantz, 1978; Zimmerman, 1988). Lantz applies the work of Ellis to social casework (see also Lantz, 1975; Lantz & Werk, 1976; Werner, 1965); Combs discusses the application of Beck's form of cognitive therapy to social work practice.

Barber (1986) refers to Learned Helplessness Theory as a "psychology of the powerless" (p. 560). The powerless reflect many of the individuals and populations with which social workers traditionally work. Thus the application of this theory to social work practice could be of significant benefit. Barber and Zimmerman focus on different aspects of the learned helplessness model with relation to social work (see also Barber, 1982; Hooker, 1976; Spindlove, Gavelek & MacMurray, 1981; Van Hook, 1979). Barber (1986) provides a useful overview to learned helplessness and illustrates how it can be integrated into social work practice. The other papers

focus on specific practice applications, for example: crisis intervention (Hooker, 1976), working with depressed women (Spendlove, Gavelek & MacMurray, 1981; Van Hook, 1979), working with unemployed young people (Barber, 1982) and development of foster care policy (Zimmerman, 1988). With respect to direct intervention with children, the social work literature is silent.

Prevalence of Negative Affect in Children

At the present time there is little Canadian work focusing on the prevalence of depression in this age group. The published (Links, Boyle & Offord, 1989) and unpublished (Fleming, Offord & Boyle, 1986) reports of the major initiative "Ontario Child Health Study" will be highlighted. However, the literature reviewed in this section comes mainly from the United States.

Overall, studies exploring the rates of depression in children have reported vastly different results. For example, Lefkowitz and Tesiny (1985) in their review of the literature report rates of moderate to severe depression in this age group ranging from 0% to 33%. Vincenzi (1987) in an investigation focusing on 66 grade six low income, black students found that 36% rated themselves at least mildly depressed on the Children's Depression Inventory (CDI). Albert and Beck (1975) found one third of 63 grade seven and eight students in suburban Philadelphia scored in the moderate to severe range on the Beck Depression Inventory (short form).

Lefkowitz and Tesiny (1985) in a large study ($n = 3020$) of New York students in grades 3, 4, and 5 found a prevalence rate of moderate to severe depression of

5.2%. In a study where 103 children and their mothers were interviewed by child psychiatrists, Kashani and Simonds (1979) report a depression rate of 1.9% in children aged 7 - 12. A longitudinal study ($n = 641$) of 9 year old children conducted by Kashani et al. (1983) found 1.8% of New Zealand children were experiencing a major depressive episode. It was also reported that a further 3 - 4% were suffering from minor depression.

The Ontario Child Health Study (OCHS; Links, Boyle & Offord, 1989; Fleming, Offord & Boyle, 1986) surveyed 1869 families that included 3294 children between the ages of 4 and 16. Using the Child Behaviour Checklist as a guide, the research team generated a checklist of behaviours that covered a number of emotional and behavioural disorders. Included on the checklist were items that assessed depressive symptomatology and included all symptoms identified in the DSM-III for a major depressive episode. This checklist entitled the Survey Diagnostic Instrument (SDI) was then completed by parents and teachers. For children between the ages of four and eleven, the prevalence rate for children experiencing a major depressive episode was found to be 2.6% (Fleming, Offord & Boyle, 1986).

Some authors have examined the relationship between depression and different measures of academic achievement. Tesiny, Lefkowitz and Gordon (1980) in a sample of 944 fourth and fifth grade students in New York public elementary schools found that depression was negatively related to school achievement. Vincenzi (1987) reports a similar finding with depression negatively correlated with 3 measures of

achievement. Feshbach and Feshbach (1987) found that this kind of relationship was stronger for girls than it was for boys.

Current theoretical conceptualizations of the gifted population argue that they are an at risk population for emotional disturbance. However, Bartell and Reynolds (1986) in a study of 145 fourth and fifth grade students (76% were gifted education students and 24% were in a regular education program), report no difference in the levels of depression.

This review highlights the fact that one must exercise caution when reviewing studies and reports that use different definitions of depression, different samples (and sizes), different assessment instruments (or sometimes the same instrument with different cutoff points) and different raters. The positive aspect of these explorations in the affective domain of children is that they contribute to future investigations by pointing out that such a phenomenon exists, that it can be measured and that children are reliable reporters of their internal states (Kazdin, 1990, p. 131).

Explanatory Style

Theory

Theorists and practitioners of cognitive therapy have found that it is helpful to understand and explain human behaviour through the use of an individual's "attributional style." Attributional style is identified as the "tendency of individuals to make consistent types of attributions across situations and time for why events have occurred" (Hill & Larson, 1992, p. 84). That is, all individuals develop and utilize a

cognitive process that filters out, arranges and interprets information in predictable ways. The individual then reacts in accordance to these beliefs. For example, when an individual loses at a game, to what do they ascribe their lack of success? Some would consider it bad luck, others would view it as continuing confirmation of their complete inability to play that game, still others might credit the other individuals with superior playing.

Arising out of the early seminal work of Kurt Lewin (1938), and continued by Rotter (1954), Heider (1958) and Atkinson (1964), the more recent writers identified with this theory are Kelley (1967) and Weiner (1985, 1986). In general terms, attribution theory attempts to help individuals answer "why" (perceived causality) certain events occur. In a very simplistic way this paradigm suggests that an individual's attribution is a mediating variable between a stimulus and a response. Rotter (1954) has argued that all attributions are at least in part determined by an internal-external dimension that has come to be known as locus of control. This seeks to explain whether an individual considers an event to be within their control (internal) or a chance occurrence (external). Weiner's (1985, 1986) contribution to this field lay in his view that another aspect to an attribution was its stability over time. That is, does one believe that things are always going to be this way, or is this a temporary, situational, or transient phenomenon?

This theory, prominent in the field of social psychology, has now been incorporated into clinical psychology in large part due to the tremendous growth and popularity of cognitive and cognitive-behavioural therapies such as A. Beck, A. Ellis,

G. Kelly, D. Meichenbaum and M. Mahoney. It is particularly attractive because of its ability to identify a target for intervention (attributions or cognitions) and lends itself to research and study. Prominent cognitive authors in the field of clinical psychology who have a strong attributional emphasis include: Seligman, Fosterling, Abramson, Rehm and Peterson.

Several writers (Fincham, 1983; Fincham & Cain, 1986; Friedberg & Dalenberg, 1991; Lalljee, Watson & White, 1983) have addressed the issue of attribution style as it relates to children. Studies on pre-school aged children, while equivocal, have shown that they can provide information in this area. Mischel (1981) notes that children "are potentially sophisticated (albeit fallible) intuitive psychologists who come to know and use psychological principles for understanding social behaviour, for regulating their own conduct, and for achieving mastery and control over their environments" (p. 240).

Some research has examined this concept in relation to depression (Alloy, Abramson, Metalsky & Hartlage, 1988; Seligman, 1990). A reformulation of Seligman's earlier work on learned helplessness sought to correct three perceived deficits of the original theory. Peterson and Seligman (1984) identify these deficits as: what determines the chronicity of helplessness (and depression)? what causes the generality (or breadth) of depression? and what can explain the loss in self-esteem that so often accompanies depression?

The reformulated learned helplessness theory argues that the way in which people interpret the causes of events will affect the way they react to those events. In

this theory there are three dimensions to each attribution. The first is an internal-external explanation which evaluates to what degree the individual is personally responsible for this event occurring ("I studied hard and did well on the test" as opposed to "The teacher gave us an easy test"). The second dimension is related to the permanent stability versus situational transience of the cause of the event ("I'm never going to do well in Math" compared to "I'm having trouble understanding geometry at the moment"). Third, individuals evaluate events in terms of global as opposed to specific causes ("Everything is going my way right now" versus "I'm glad I got picked to be in the drama presentation"). A table identifying examples from Peterson and Seligman (1984, p. 349) is reproduced for clarification of these attributional dimensions.

Figure 1

A Representation of Explanatory Style

		EXPLANATION	
Style		Internal	External
-----		-----	-----
Stable	Global	"I'm incapable of doing anything right"	"All institutions chronically make mistakes"
	Specific	"I always have trouble figuring my balance"	"This bank has always used antiquated techniques"
Unstable	Global	"I've had the flu for a few weeks, and I've let everything slide"	"Holiday shopping demands that one throw oneself into it"
	Specific	"The one time I didn't enter a check is the one time my account gets overdrawn"	"I'm surprised--my bank has never made an error before"

This theory is considered to apply to children in the same way as adults. (It should be noted that Seligman prefers to use the term explanatory style as a way of highlighting the move from attributional theory as applied to achievement, to the style of explaining events in the mental health field). Children with a pessimistic explanatory style who explain bad events with internal, stable and global causes are viewed to be vulnerable to depression. Several studies (Dixon & Ahrens, 1992; Hammen, Adrian & Hiroto, 1988; Kaslow, Rehm & Siegel, 1984; Seligman et al.,

1984; Seligman & Girgus, 1986) have been undertaken to examine this theory. The research does confirm that explanatory style is a useful construct that can be studied and applied to children.

Research

The study of explanatory style in children appears to be a relatively recent phenomenon. The following studies represent those that examine both explanatory style and depression in a pre-adolescent population. Kaslow, Rehm and Siegel (1984) assessed 108 students in grades 1, 4 and 8 using the Children's Depression Inventory (CDI), the Coopersmith Self-Esteem Inventory (CSI) and the KASTAN Children's Attributional Style Questionnaire (CASQ). Results indicated that depressed children were more likely to make the characteristic pessimistic explanations, $r(106) = .52, p < .001$ (p. 615).

Seligman et al. (1984) report on a study of 96 children ranging in age from 8 - 13 years in which the CDI and the CASQ were administered on two occasions over a 6 month period. They found that attributional style and depression correlated strongly with each other (p. 236). More specifically the results indicated correlations on two testings of .51 and .40 ($p < .001$) for a pessimistic style with CDI scores and conversely correlations of -.53 and -.54 ($p < .001$) when optimistic scores were compared with CDI scores. Additionally, they report that "an internal, stable and global way of constructing the causes of bad events predicted depressive symptoms in children 6 months later, with initial level of depression held constant" (pp. 237, 238).

A longitudinal study conducted by Nolen-Hoeksema, Seligman and Girgus (1986) measured depression (CDI), life events (Life Events Questionnaire) and explanatory style (CASQ) of 168 students in grades 3, 4 and 5 on five occasions over a one year period. A pessimistic explanatory style was found to be associated with higher levels of depression both at the time of administration and at subsequent administrations.

The concept of explanatory style has developed over the past 60 years to refer to the cognitive filter that individuals use to screen and assemble information. It is a concept that has more recently been applied to the areas of learned helplessness and depression. Even more recent is its' application in this area (negative affect) to children. Thus there is considerable theoretical documentation, but little empirical exploration with respect to negative affect and children.

Stressful Life Events

Theory

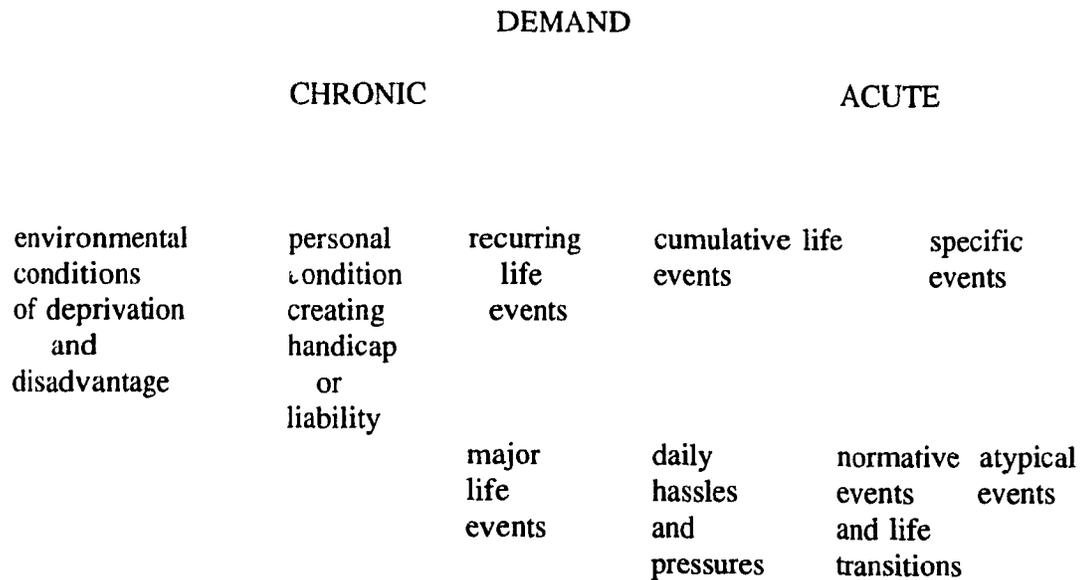
Children are not immune to situations and events that create stress in humans. In fact a theoretical case could be made that they are more vulnerable to the effects of stressful life events because they have not yet learned how to control the stressors or learned positive adaptive responses to them. Furthermore, because of the developmental considerations there could be the potential for serious repercussions later in life. Consequently early intervention in young children by developing coping

strategies, social skills, cognitive training and decision making skills could greatly ameliorate the present circumstance and prevent future maladaptive responses.

The field of stress research has traditionally been divided into two broad groups. Those that focus on the "stimulus" side of stress (events, situations, experiences that place a demand on an individual) and those that focus on the "response" side of stress (the individual's reaction to events, situations or events) (Johnson, 1986). The stimulus-oriented position holds to the notion that "stressful life events, by evoking psychophysiologic reactions, play an important causative role in the natural history of many diseases" (Holmes & Rahe, 1967). The response-oriented position believes that different people may perceive and respond to the same stressor in different ways. Simply what is a stressor to one person may not be a stressor to another person.

There has been considerable effort expended in understanding the types of stressors that children experience. Compas (1987) provides the following chart to highlight the different kinds of stressors that children may encounter.

Figure 2

Sources of Childhood Stress

Using this model, one can see the range and variety of potential stressors for children. Other considerations that merit mention are the mediators of stress in children. These could include: personal resources (such as coping skills, cognitive style), social network, family environment. All of these factors could mediate or lessen the impact of a stressor in a child's life.

Research

The theoretical idea that life stress contributes to dysfunction in children appears to be corroborated by the research literature. Compas (1987) in reviewing 26 retrospective cross-sectional studies that involved children or adolescents states that there was a "significant relationship between life events and disorder ... in every

study" (p. 284). The caution is that the relationships have been correlational and do not prove an etiological link between life events and future physical dysfunction or psychopathology. Hammen, Adrian and Hiroto (1988) studied 79 children whose mothers were involved in a "Family Stress Project". These children ranging in age from 8 - 16 years completed a CDI and CASQ, while an interviewer completed a children's version of the Schedule for Affective Disorders and Schizophrenia (Kiddie SADS) on each child. The researchers found that CASQ scores were highly correlated with CDI scores, $r = 0.51$, $p < .0001$), and perceived life stress (as reported during an session with an interviewer) was correlated with a later diagnosis of depression (p. 43).

An additional study (Dixon & Ahrens, 1992) examining stress, attributional style and depression in 84 children at a summer camp ranging in age from 9 - 12 years found that while attribution style did not predict high levels of depression at a later testing, daily negative events did predict higher depression scores at a later testing, $F(1, 80) = 30.44$, $p < .0001$. There was also a significant interaction of explanatory style and daily negative events that accounted for an additional 3% of the variance in CDI scores at a later testing, $F(1, 79) = 4.69$, $p < .03$. This result was seen to confirm that the diathesis-stress model was applicable to children as well as adults.

One study found evidence that negative life events affect school behaviour and academic performance (Sterling, Cowen, Weissberg, Lotyczewski & Boike, 1985). In this study of 211 primary aged students, it is reported that those students who

experienced one or more negative stressful life events (eg. death of a parent, sibling or close relative; parents separated or divorced; family experiencing severe economic difficulties) were more likely to be rated by their teacher as being maladjusted and less competent (p. 94).

On the other hand, a longitudinal study by Dubow, Tisak, Causey, Hryshko & Reid (1991) was completed over a two year period in which stressful life events, social support and social skills were examined to determine if any of these variables were predictive of future adjustment as measured by parents and teachers. The number of stressful life events was determined by a checklist completed by the child's parents while the children completed social support and social problem-solving inventories. Their findings failed to find any support for a relationship between stressful life events and later behavioural or academic adjustment (p. 595).

Summary of Literature Review

A number of issues arise from the literature reviewed above. First, there is confusion around the prevalence of negative affect in children. Second, while the early writers in the field of gifted psychopathology considered gifted children to be insulated against psychological disruption, currently the dominant theoretical position is that the gifted child is more vulnerable to psychopathology. Third, there is emerging research evidence demonstrating a link between negative affect and a pessimistic explanatory style, however this is limited and is restricted to students in a regular education setting. Fourth, there has been empirical interest with respect to the

relationship between life events and negative affect, but the actual evidence (for children aged 9-11) supporting a positive relationship must be considered equivocal at best. Fifth, there are indications that explanatory style may be a mediating variable between stressful life events and negative affect.

Definition of Variables

Conceptual definitions

Regular education children -- students who are receiving academic instruction within a non-modified classroom setting.

Gifted education children -- students who are receiving a modified educational program due to identified superior intellectual functioning.

Explanatory style -- the manner in which people explain to themselves why things happen (Seligman, 1990, p. 15).

Negative affect -- a syndrome that includes symptoms such as: sadness, dysphoria, energy loss and feelings of worthlessness (Clarizio, 1984; DSM - IV, 1994).

Stressful life events -- refers to those situations and events that "require a readjustment on the part of the individual (Coddington, 1972b)."

School-aged children -- children in grades four to six.

Operational definitions

Regular education children -- those students who on the day of administration are in attendance in a non-modified classroom in one of two schools in the city of Scarborough.

Gifted education children -- those students who have "an unusually advanced degree of intellectual ability" (Scarborough Board of Education, 1984). In practice, the students must have achieved a score of 140 or above on at least one sub-test of the Weschler Intelligence Test. The students have also been formally declared exceptional and placed by an Identification and Placement Review Committee into a self-contained special education program for the gifted. They were present at school on the day of administration.

Explanatory style -- as measured by the Children's Attributional Style Questionnaire (CASQ).

Negative affect -- as measured by the Children's Depression Inventory (CDI).

Stressful life events -- measured in terms of Life Change Units through completion of the "Life Events Questionnaire" (Coddington, 1984).

School-aged children -- those students between the ages of eight and twelve who were permitted to participate and who were present in a classroom that was participating in the study.

Research Questions

This study is a descriptive survey which examines two groups of elementary school-aged children (gifted and regular education students) with respect to the prevalence of negative affect. Further, two variables, explanatory style and life events will be examined in relation to negative affect in order to determine what relationships might exist. The questions that form the basis of this investigation are listed below.

Negative affect

WHAT IS THE PREVALENCE OF NEGATIVE AFFECT IN GIFTED AND NONGIFTED CHILDREN IN GRADES 4, 5, AND 6?

Rationale There are relatively few Canadian studies (Fleming, Offord & Boyle, 1986; Links, Boyle & Offord, 1989) focusing on this age group, and there is no Canadian literature examining the gifted population in spite of a strong theoretical argument supporting an increased prevalence of depressed gifted children (Farrell, 1989; Kaiser & Berndt, 1985; Lajoie & Shore, 1981; Weisse, 1990). The American research with respect to the gifted population is limited (Bartell & Reynolds, 1986) and insufficient to make any kind of generalizations.

ARE THERE GENDER AND AGE DIFFERENCES IN THE REPORTS OF NEGATIVE AFFECT AMONG CHILDREN IN GRADES 4, 5, AND 6?

Rationale The literature is clearly divided on the issue of gender differences and scores on the CDI. Some studies suggest that males score higher than females (Bartell

& Reynolds, 1986; Finch, Saylor & Edwards, 1985; Smucker et al., 1986); other studies report that females score higher than males (Doerfler, Felner, Rowlinson, Raley & Evans, 1988; Kazdin, French & Unis, 1983); while some others report no differences according to gender (Gates, Lineberger, Crockett & Hubbard, 1988; Haley, Fine, Marriage, Moretti & Freeman, 1985; Helsel & Matson, 1984; Kovacs, 1983). Within the age group under investigation there are no reports in the literature of significant age differences.

ARE THERE DIFFERENCES IN THE PREVALENCE OF NEGATIVE AFFECT AS REPORTED BY TEACHER RATING AND STUDENT SELF REPORT?

Rationale There are relatively few published studies that have used teacher's reports of negative affect in a non-clinical population (Bartell & Reynolds, 1986; Jacobsen, Lahey, & Strauss, 1983; Kashani et al., 1983; Sacco & Graves, 1985). Of these studies, three reported no correlation between child self report and teacher rated depression (Jacobsen, Lahey & Strauss, 1983; Kashani et al., 1983; Sacco & Graves, 1985), with only one study (Bartell & Reynolds, 1986) finding a significant relationship between child self rated and teacher report of depression.

Explanatory style

IS EXPLANATORY STYLE RELATED TO THE REPORTING OF NEGATIVE AFFECT?

Rationale The Children's Attributional Style Questionnaire assesses the explanatory style of children. An overall score reveals whether a student holds an optimistic or pessimistic explanatory style. The relationship of a pessimistic explanatory style to negative affect has been explored by a number of authors (Kaslow, Rehm & Seigel, 1984; Nolen-Hoeksema, Seligman & Girgus, 1986; Seligman et al., 1984). These studies generally confirm the existence of a relationship between self-report depression scores and a pessimistic explanatory style of children. There is presently no Canadian data available in this area.

ARE THERE DIFFERENCES IN THE EXPLANATORY STYLES OF GIFTED AND NONGIFTED CHILDREN IN GRADES 4, 5, AND 6?

Rationale At the present time there is no available information to determine whether there are any differences between these two groups. One could make an argument that if negative affect and explanatory style are closely related, and if gifted children are at risk for depression, then it is possible they are more likely to have pessimistic explanatory style. However, this is speculative based on theoretical assumptions only.

ARE THERE GENDER AND AGE DIFFERENCES IN EXPLANATORY STYLE?

Rationale Seligman (1990) and Nolen-Hoeksema, Girgus and Seligman (1989) report that elementary-aged males in this age group evidence a more pessimistic explanatory style than females. There are no reports of significant differences in the age group under investigation.

Stressful Life Events

IS THERE A RELATIONSHIP BETWEEN STRESSFUL LIFE EVENTS AND NEGATIVE AFFECT?

Rationale Theoretical formulations suggest that children who experience stress in their lives are more likely to experience physical and/or psychological disruption (Coddington, 1972a, 1972b; Compas, 1987; Holmes & Rahe, 1967; Johnson, 1986). However, research is not unanimous in its support of this theory with some studies (Banez & Compas, 1990; Hammen, Adrian & Hiroto, 1988; Sandler & Block, 1979; Sterling et al., 1985) supportive of this formulation, while others report no significant relationship between stressful life events and negative adjustment in children (Carson, Swanson, Cooney, Gillum & Cunningham, 1992; Dubow et al., 1991).

IS THERE A RELATIONSHIP BETWEEN STRESSFUL LIFE EVENTS AND EXPLANATORY STYLE?

Rationale One study examining stressful life events and explanatory style is reported in the literature (Hammen, Adrian & Hiroto, 1988). Unfortunately there is no

indication that any attempt was made to determine what relationship might exist between these two variables.

WHAT RELATIONSHIP EXISTS AMONG STRESSFUL LIFE EVENTS, NEGATIVE AFFECT AND EXPLANATORY STYLE?

Rationale The study referred to previously (Hammen, Adrian & Hiroto, 1988) suggests that the interaction of stressful life events and explanatory style was not significant in predicting depression, but it is not known if a correlational relationship existed. Although there is little empirical research published on the relationship of these three variables, the results of this investigation could lead to a better understanding as to how these three concepts relate. For example, do stressful life events account for the existence of negative affect? or is it the interaction of stressful life events plus a negative explanatory style? In applying explanatory style to a diathesis-stress framework, Alloy, Abramson, Metalsky and Hartlage (1988) hypothesize that what will determine different levels of negative affect in individuals with similar situational status is their different explanatory styles (p. 10). As applied to this investigation, it would mean that students who report similar life events will record elevated scores in negative affect dependent on their individual explanatory style. That is, a persons' explanatory style will function as a mediator between life experiences and affect.

CHAPTER 3

Methodology

Research Design

This study is a descriptive survey which examines stressful life events, explanatory style and negative affect with children in grades 4, 5, and 6. Further, children enrolled in both regular education classes and gifted education classes in a large urban Canadian centre are studied. Children participating in the study were asked to complete three self report questionnaires that asked questions about feelings, behaviour, and life events. These instruments were selected due to previous investigations that found them to be valid and reliable measures with elementary aged children in non-clinical populations. In addition, the primary teacher of each student participating in the study was asked to report on the affect of students in his or her class. The rating scale completed by teachers was developed and used previously in a study with teachers of gifted and nongifted children of this age. A complete discussion of the instruments is found later in this chapter.

This research design was selected due to the relatively few explorations in this field. Current research reveals an incomplete picture that requires additional refining. Negative affect in the form of childhood depression is recognized to exist, is operationalized, and attempts have been made to examine the prevalence. Stressful life events in children have been studied and quantified allowing for objective study. Explanatory style in children has a considerable theoretical foundation and is amenable to empirical investigations. Thus there is evidence that this is an emerging area

worthy of exploration for social workers. At the same time, there is considerable room for study. The field of gifted mental health, especially, is punctuated with theoretical rhetoric describing a large group of students as psychopathologically vulnerable. However, empirical validation of this viewpoint remains to be done.

This survey will allow for comparison with other similar studies completed elsewhere, as well as at an earlier point in time. It will also provide initial results for the study of gifted children in the areas of negative affect, explanatory style and stressful life events.

Sample

The participants for this study were students in grades 4, 5, and 6 in two elementary public schools in the City of Scarborough, Ontario. One school is both a home school for children living in the community and host for the elementary program for identified gifted students in the municipality. The second school is a neighbouring school within the same community and offers a regular education program. The sample size was 178 with a split of 92 gifted and 86 nongifted.

The parents of all students in grades 4, 5 and 6 in these two schools were informed that on a specific day their child would be asked to complete three mental health inventories (Appendix A). As all potential participants were aged 12 and under, in order for children to participate the parents were required to return a signed permission form to the school (Appendix B).

Data Collection

On the day of administration, each student was asked to complete a consent form containing some basic identifying information (Appendix C), a Children's Depression Inventory (entitled "Thoughts and Feelings Questionnaire", Appendix D), a Children's Attributional Style Questionnaire (entitled "Response to Situations Questionnaire", Appendix E) and a Life Events Questionnaire (Appendix F). In addition, each teacher signed a permission form (Appendix G) indicating their agreement to participate and they were asked to assess students on a range of behaviours consistent with a description of depression (see Appendix H).

The three self report instruments for children were not pre-tested during the course of this investigation for the following reasons. The questionnaires had previously been cited in the literature as appropriate and useful for this age and population. In addition, they appear to have been administered in a similar small group setting with no indication of any difficulties. The investigator has also administered these questionnaires to children of this age within a clinical assessment context.

The investigator was present in each class to orally introduce the instruments and to answer any questions that arose. The completed questionnaires were immediately placed in an envelope in order to ensure that the only person having access to the completed instruments was the investigator.

It was possible that completion of the questionnaires could have evoked feelings of discomfort or upset. Before students began filling out the form, the

investigator included in the instructions a statement such as: "Sometimes when completing forms like this you will feel like talking to other people about it. If you would like to talk to an adult about how you are feeling, please feel free to speak to me at the back of the class or to go to the guidance office (Appendix I)." Teachers who had concerns about specific students during the completion of these questionnaires were encouraged to suggest that these students should speak to someone as well. The investigator, a school social worker or guidance counsellor was available in this area during and after the administration. Several children asked questions during administration but no children requested a meeting with the support staff during or after the testing.

The information was not gathered anonymously so that students who scored in the severe range on the CDI could be identified. Three children scored in the severe range and their parents were contacted for further action. These three children had T-scores above 75 on the CDI. This is identified, by Kovacs (1992, p. 19), as an appropriate threshold (indicating "clinical problems") for this type of population. It should be emphasized that only the parent(s) of students were contacted, the school and classroom teacher were not informed of the specific results. Parents were provided with resources (eg. family doctor, mental health services, psychiatric referral) which they were encouraged to access. No information on a specific student was passed to educational personnel nor was it recorded in any students' Ontario Student Record.

Instrumentation

Self report scales have become an extremely popular assessment tool in this field. It has been confirmed that young children are able to provide both valid and reliable data on self report measures including self esteem, anxiety, and locus of control (Reynolds, Anderson & Bartell, 1985, p. 514). Kazdin (1990) in his review of self report depression measures states that research has solidly established that children can accurately report on their depression (p. 131).

Traditionally few studies have sought out the opinions of teachers in this way (Costello, 1986; Hoier & Kerr, 1988). Some authors identify poor correspondence between raters (Doerfler, Felner, Rowlinson, Raley & Evans, 1988; Epanchin & Rennells, 1989; Korup, 1985; Sacco & Graves, 1985) and consider this to be a drawback of such a format. Such a view is expressed succinctly, "there exists no evidence that teachers are valid assessors of childhood depression....., one would conclude that the teacher ratings were inaccurate" (Sacco & Graves, 1985, p. 355). However, Epanchin and Rennells (1989) argue that "these (discrepant) findings also lend additional support to the importance of gathering data from all significant persons in a child's life" (p. 173). Hoier and Kerr (1988) articulate four reasons for using teachers as a source of information: (1) it is a check on the information provided by other sources; (2) they are aware of symptoms that may go unnoticed (or are unavailable) to others; (3) they are able to notice changes in behaviour; and (4) they can provide information on the effectiveness of the treatment of a depressive illness (p. 21).

For this investigation, the instruments selected for use were; the Children's Depression Inventory (CDI; Kovacs, 1982); the Children's Attributional Style Questionnaire (CASQ; Kaslow, Tanenbaum & Seligman, 1978), the Life Events Questionnaire (LEQ; Coddington, 1984); and a Teachers Rating Scale (TRS; Bartell & Reynolds, 1985).

The Children's Depression Inventory

The CDI is considered to be the most widely used self report depression scale (Saylor et al., 1984; Finch et al., 1985; Reynolds, Anderson & Bartell, 1985; Leitenberg, Yost & Carrol-Wilson, 1986). This scale was developed as a children's equivalent to the 21-item Beck Depression Inventory. The first version of the CDI was developed in 1975. Revisions were made after several field tests but it has remained basically unmodified since 1977.

Kovacs (1992) describes the CDI as an instrument that "quantifies a range of depressive symptoms including disturbed mood, hedonic capacity, vegetative functions, self evaluation and interpersonal behaviours" (p. 1). It is considered appropriate for children aged 7 to 17. Clinical experience demonstrates that it takes approximately 10 minutes to administer, and it requires a grade one reading level (Kovacs, 1985).

The scale is comprised of 27 items with each item consisting of three sentences. Children are asked to choose the one sentence that best describes the way that they have been feeling or thinking in the past two weeks. Each item is then rated with a 0, 1, or 2 indicating progressive severity. Thus the overall score on the CDI

could range from 0 to 54. Kovacs (1992) has established guidelines for the interpretation of scores. There are nine categories that range from "Very much above average" to "Very much below average". The cut-points for each of these categories are based on norms established according to the age and gender of the respondent. The CDI was intended for use as a research instrument (1981) and it is equally effective when administered individually or in groups (Finch et al., 1985).

Psychometrically the CDI is the most researched self report measure for childhood depression. With respect to the reliability of the instrument, internal consistency using coefficient alphas is reported as ranging from a low of .71 to a high of .94 (Kovacs, 1985; Kovacs, 1992; Saylor et al., 1984). These are taken from samples that included: a variety of psychiatric populations, paediatric outpatients, Canadian, British, American and Arabic elementary school students, and behaviourally/emotionally disturbed students.

Kovacs (1985, 1992) considers the test-retest correlations to demonstrate a reasonable level of stability. Kovacs' (1992) review of published reports show the correlations range from a low of .41 (Pennsylvania students over a one year period) to a high of .83 (for a sample of Texas students over a three week interval). Saylor et al. (1984) differ with Kovacs and contend that it is an area with widely discrepant results. They found a low coefficient of .38 in a normal sample of 72 children over a one week period and a high coefficient of .87 for an emotionally disturbed sample with a one week interval.

Three aspects of validity will be discussed with respect to this instrument.

These are concurrent, discriminant and construct validity. Anxiety and self esteem are two variables which have correlated positively with the CDI. Kovacs (1985) reports a correlation of .65 ($p < .0001$) with self rated anxiety (p. 13). The CDI was negatively correlated with self concept ($r = -.64$, $p < .001$) according to Saylor et al. (1984). Green (1981) confirms that CDI scores were negatively correlated with self esteem (as measured by the Coopersmith, Self Esteem Inventory) and were significant at the .0001 level.

The ability of the CDI to distinguish depressed children from nondepressed children was the focus of an investigation by Hodges (1990). The results indicate that the CDI scores of depressed children were significantly higher than nondepressed children ($p < .009$). In this investigation, a clinical interview (Child Assessment Schedule) was used as the basis for a diagnosis of depression and the results of this interview were compared to the CDI scores. Kovacs (1985) reports that the CDI was able to significantly distinguish between a depressed and non-depressed population ($p < .0002$, p. 17). Saylor et al. (1984) found a lower level of significance ($p < .02$) when trying to distinguish between normal and emotionally disturbed children (p. 958).

Kovacs (1985) considered the CDI to be a unidimensional measure confirmed by a varimax rotation with an eigenvalue of 5.95 which accounted for 63.7% of the variance (p. 14). More recently Kovacs (1992) acknowledged the existence of five primary interrelated factors. These factors are labelled negative mood, interpersonal

problems, ineffectiveness, anhedonia and negative self esteem. They formed the basis for the development of 5 subscales that can be scored separately on newer versions of the CDI (Kovacs, 1992). These five factors intercorrelate ranging from .34 to .59 and correlate with the overall CDI from .55 to .82 (Kovacs, 1992 p. 30). Saylor et al. (1984) also found the CDI to be a multidimensional construct but identified 8 factors with eigenvalues about 1 and accounting for 58.4% of the variance (p. 960).

The CDI stands alone as the most researched self report scale for childhood depression. Even Saylor et al. (1984) following their exhaustive and critical evaluation of the psychometric properties acknowledge that "the CDI stands out as one of the most carefully scrutinized self report measures of childhood depression" (p. 965).

The Children's Attributional Style Questionnaire

In examining the explanatory style of children, the self report KASTAN Children's Attributional Style Questionnaire (CASQ) is the most widely used instrument. One other questionnaire is cited in the literature but it is limited to the assessment of attributional style as it relates to academic achievement (Intellectual Achievement Responsibility Scale). The CASQ developed by Kaslow, Tanenbaum and Seligman (1978) consists of 48 statements that list hypothetical events. Each respondent is forced to choose between two explanations for each event. An example from the CASQ follows:

YOU GET VERY GOOD GRADES

- A. School work is simple
- B. I am a hard worker

Sixteen statements relate to each of the three attributional dimensions (internality, stability and globality). Half of the statements ask for explanations of good events while the remaining 24 seek explanations for negative events. A composite score for each of the positive and negative scales is obtained by summing the total for the 24 statements that relate to the respective scales. An overall score for explanatory style is achieved by subtracting the negative score from the positive score. Thus the most negative (pessimistic) score would be -24, and the most positive (optimistic) score would be 24. The mean for females in this age group is 7.0 and the mean for males of this age is 5.0.

Psychometrically the reliability of the scale has been evaluated in a number of studies. The internal consistency of the "negative" subscale is reported as falling between .42 and .61 over 9 administrations (Nolen-Hoeksema et al, 1990). Hammen et al. (1988) found it to be .58 while Nolen-Hoeksema et al. (1986) report a coefficient alpha of .66. The corresponding scores for the positive subscale falls between .47 and .71 (Nolen-Hoeksema et al, 1990 and Nolen-Hoeksema et al, 1986). Seligman et al (1984) report relatively stable scores over a 6 month period ($r_s = .71, .66$) and view this to be evidence that explanatory style is a stable construct over time.

The Life Events Questionnaire

There are at least six checklists available to assess the life events of adolescents but only one that is designed for use with children (see Compas, 1987). The Life Events Questionnaire (LEQ; Coddington, 1984) is a 36 item checklist patterned after the adult scale developed by Holmes & Rahe (1967). The 36 items were gathered through professional experience and a review of the literature. The list was then given to a group of 243 individuals that included teachers, pediatricians and child psychiatric mental health workers. This group was asked to rate each item according to how much "readjustment" was needed to cope with the specific situation. Coddington (1972a) reports that there were "no significant differences in the rank order assigned to the items in any age group by group or subgroup of our respondents. The 243 persons essentially agree in the relative importance of all items" (p. 12). Each item was then given a weighting called "Life Change Units" (LCU's). For example, the death of a parent was granted 89 LCUs and brother or sister leaving home was given 39 LCUs. The lowest possible score by a respondent is 0 while the highest score possible is 1499.

The reliability of the LEQ is not well documented. However, this should not be understood as a deficit of this instrument specifically but rather reflects a general problem with this type of scale. Zimmerman (1983) observes that test-retest reliability of all life events scales will be problematic due to the possibility that those completing the inventories may experience stressful events between the testing periods (p. 363). In addition, those events reported at an earlier testing may no longer be within the time

guidelines (1 year) at a later administration. Compas (1987) puts forth a cogent argument that the lack of internal consistency reliabilities may not be inappropriate given that events occur across multiple domains in an individuals' life and there may be little relationship between them. With respect to inter-rater reliability it is probable that due to the subjective nature of reporting across a number of areas of an individual's life, scores in this area would not be high.

Content validity was confirmed through 724 administrations to a group of grade 4 students and their parents (Coddington, 1984). Items on the LEQ covered 97% of the events mentioned by students and 89.4% of the items listed by parents. This suggests that the events recorded on the LEQ include a good representation of life events likely to occur among this population. Coddington (1984) reports concurrent validity, significant at the .01 level, between parents and children. Children were noted to report fewer negative life events than were their parents. There is some evidence of predictive validity in that grade 4 students who scored high on the LEQ were more likely to experience academic maladjustment (negative behaviour, poor academic performance or school absenteeism) and this was significant at the .025 level. Johnson (1986) identifies the Coddington scale as the "best known and widely used" (p. 32) and concludes his overview of instruments available for children by saying "the Coddington scale,..., appears to be the only one of these measures that is reasonably well supported by research data" (p. 37).

Teacher Rating Scale

The use of a teachers rating scale poses more difficulty. There is no "industry standard" or "primary measure" in this area. The scales that have been used either are adaptations of other measures (CDI) or are DSM-III checklists. Lefkowitz and Tesiny (1980) and Bartell and Reynolds (1986) use a teacher rating scale that offers a definition of depression and asks teachers to rate each student on a five point scale from "not depressed at all" to "extremely depressed". The scores could range from 1 - 5. For the purposes of this investigation a similar format was used. In both of the previous investigations, the teacher ratings significantly correlated with other measures of depression (CDI, PNID, Zung and CDS). Little other psychometric data is recorded. However in the absence of other measures and the apparent success of this one, the format outlined by Bartell and Reynolds (1986) was followed.

Limitations

The methodological limitations include the fact that some children were not able to participate in the study. This was due to absence (illness, avoidance, or another reason), parental choice or personal choice. In addition, the schools involved in the project were not randomly assigned but rather were selected for other reasons. One school was chosen because it was the host school for the gifted program and the second school was selected because of its geographic proximity and demographic similarity to the first school.

It should be clearly stated that this type of study does not allow for causal determinations. It does however, generate information that could be useful for future studies that build on the data obtained.

CHAPTER 4

Results

Description of the Sample

There were 178 participants in this investigation with an age range from 8 (only 1 student) to 12. All children were in grades 4, 5 or 6. A total of 186 children returned parental permission slips. The total possible sample was 294 (no student refused to participate), resulting in a parental response rate of 63%. Fully 37% of eligible children were not able to participate due to their parent's lack of response, and an additional 8 children were absent on the day of administration (for an overall response rate of 60.5%).

There were 92 children in the gifted program and 86 students in regular education classrooms. The students in gifted education classes had a response rate of 75%, while the rate for students in regular education classes was 54.5%. One school contributed 124 participants (both regular and gifted education children) and a second school contributed 54 participants (regular education only). Tables 1 and 2 describe the sample according to grade, educational program, gender and age.

Table 1

Summary of Sample: Grade by Educational Program and Gender

	Total	Gifted	Regular	Female	Male
grade 4	50	19	31	21	29
grade 5	53	25	28	21	32
grade 6	75	48	27	33	42
OVERALL	178	92	86	75	103

There were more students in grade 6 due to the higher number of gifted students in that grade. Overall there were more males (103) than females (75) as there were consistently a higher number of males in each grade. The majority of students were between the ages of 9 and 11. This is natural considering the grade level of students under investigation.

Table 2

Age Distribution of Sample

Age	Frequency	Percent
8	1	.6
9	37	20.8
10	50	28.1
11	63	35.4
12	27	15.2
Total	178	100.0

Table 3 lists the languages that students indicated were spoken in their homes. A total of 128 students identified English as the primary language spoken at home. Of the 50 students who listed another language, 44% identified Chinese as the primary language spoken at home and a further 10% selected Tamil. More students in the gifted program (31/92) identified a language other than English spoken at home, than did regular program students (19/86). An analysis of variance reveals that while not statistically significant, there was a clear trend that gifted students were more likely to identify a language other than English as being the primary language spoken in the home, $F(16, 160) = 1.5, p = .10$.

Table 3

Language Spoken at Home (as identified by student)

	Frequency	Percent
Bengali	2	1.1
Burmese	1	.6
Chinese	22	12.4
English	128	72.0
French	2	1.1
Greek	3	1.7
Gujarati	1	.6
Japanese	2	1.1
Kutchi	2	1.1
Korean	2	1.1
Persian	1	.6
Polish	2	1.1
Portuguese	1	.6
Sinhalese	1	.6
Spanish	1	.6
Tamil	5	2.8
Urdu	2	1.1
Total	178	100.0

Tests of the Research Questions

Negative Affect

WHAT IS THE PREVALENCE OF NEGATIVE AFFECT IN GIFTED AND NONGIFTED ELEMENTARY AGED CHILDREN?

Scores on the CDI indicate that the overall mean score was 7.0, with a standard deviation of 7.2 and a range of 0 - 44 for this sample. The mean is lower than that reported elsewhere in the literature. For example the mean for this age group reported by Kovacs (1992) is 9.8. In addition, Kovacs (1981) found a mean of 9.3 for this age group and that reported by Smucker et al. (1986) is 8.7.

The cutoff for those scoring in the highest 10% ($n = 18$) of the sample was 16, which is lower than other authors who suggest 19 (Doerfler et al., 1988; Smucker et al., 1986) or 20 (Kovacs, 1992) as the normal cutoff for the upper 10% in this age group. According to Kovacs (1992) a score of 16 and above should include approximately 20% of the population. This would indicate that overall the sample reported much lower scores than reported in other investigations. Only 5 students scored in the most severe range (25 and higher for boys, 23 and higher for girls), indicating a prevalence of severe negative affect of slightly under 3%. Fully 88% of this sample scored within the average range or lower.

A breakdown of the top 10% of scores (indicating high levels of negative affect) reveals that there were 12 regular education students and 6 from the gifted program, 9 males and 9 females, 6 were aged 9, 5 were aged 10, 6 were aged 11 and

1 was 12 years of age. Sixteen identified English as a first language and two identified another language. An analysis of the lowest 11% of scores (all those who scored 0 on the CDI) reveals this profile: 8 regular education students and 11 gifted; 16 males and 3 females; 3 were aged 9, 10 were aged 10, 5 were aged 11 and 1 was aged 12; 11 identified English as the first language spoken at home and 8 identified other languages.

Table 4

Comparison of Means on Negative Affect by Educational Program (Gifted and Regular Education)

Group	<u>M</u>	<u>SD</u>	<u>n</u>
Regular	7.9	6.9	86
Gifted	6.1	7.4	92
Overall	7.0	7.2	178

$$t = 1.67, df = 176, p = .10 \text{ (2-tailed test)}$$

Table 4 shows that the mean for gifted children (6.1) was lower than that of regular education children (7.9), indicating that gifted students were reporting a lower level of negative affect. This difference was not statistically significant although there was a trend toward a higher mean for regular students ($t = 1.67, p = .10$). The F

value (1.2) of the t -test indicates that there is no statistical difference in the variances of these two groups. Consequently when using the pooled variance t -value (.10), one must conclude that there was no difference in the mean scores of these two groups. This contradicts the current theoretical formulations which suggest that the gifted population is at risk for mental health problems. It supports the findings of Bartell and Reynolds (1986) who found no difference between 145 gifted and nongifted children in grades 4 and 5.

There were no significant differences found in CDI scores by school, language or grade.

ARE THERE GENDER AND AGE DIFFERENCES IN THE REPORTS OF NEGATIVE AFFECT?

Table 5

Negative Affect by Gender

Gender	<u>n</u>	<u>M</u>	<u>SD</u>
Male	103	6.7	8.0
Female	75	7.4	6.0

$t = -.70$, $df = 176$, $p = .50$ (2-tailed test)

Table 5 demonstrates that the lower male mean (6.7) was not statistically different (t -test, $p = .50$) from the female mean (7.4). The F Value of 1.7 suggests that the variances cannot be considered to be equal and therefore the results of the separate-variance t -test have been used. Although males on average scored slightly lower than females (with a larger variation in scores), the result was not statistically significant.

Table 6

Negative Affect By Age

Age	<u>n</u>	<u>M</u>	<u>SD</u>
8	1	1.0	0.0
9	37	7.9	6.9
10	50	6.5	8.5
11	63	7.3	7.2
12	27	6.4	5.0
Overall	178	7.0	7.2

No significant difference was found among age groups using a one way ANOVA.

The results recorded in Table 6 indicate that there were no significant differences on CDI scores by age, $F(4, 173) = .44$, $p = .80$. One might have expected an increase in mean scores in the 11 and 12 year olds due to their stage of early adolescence, as this time period is considered by some to be a critical period which is characterized by emotional, physical and cognitive disruption. However, in this sample the lowest mean, indicating least amount of negative affect, was recorded for 12 year olds (aside from the one 8 year old).

ARE THERE DIFFERENCES IN THE PREVALENCE OF NEGATIVE AFFECT AS REPORTED BY TEACHER RATING AND STUDENT SELF REPORT?

There appears to be a moderate relationship between the teacher's rating of depression and the student self rating of depression. On the TRS there was a range of 1 ("not at all depressed") to 5 ("extremely depressed"), the mean was 1.9 and the standard deviation was 1.0. There were 16 students rated 4 or 5 by their teachers.

Table 7

Relationship Between Children's Depression Inventory and Teachers Rating Scale

	CDI	TRS
CDI	1.0000	.3898
TRS	.3898	1.0000

$$r = .40, n = 178, p \leq .001 \text{ (1 tailed test)}$$

Table 7 reports a significant positive relationship between CDI scores and TRS scores ($r = .40, p < .001$), though the correlation is not strong. This lends some support to the notion that teachers can provide important information about the emotional states of their students, and further, that this information can be congruent with student perceptions. There were no significant findings between TRS scores and program, gender and language.

Table 8

Comparison of Mean Scores on Children's Depression Inventory With Scores on the
Teacher's Rating Scale

Score on TRS	<u>N</u>	CDI <u>M</u>	<u>SD</u>
1.0	79	4.6	4.5
1.5	1	7.0	.0
2.0	62	6.9	6.2
2.5	1	4.0	.0
3.0	19	12.9	11.4
4.0	10	13.9	8.0
5.0	6	11.0	11.2
Overall	178	7.0	7.2

This table illustrates the relationship that exists between TRS and CDI scores. If the TRS scores are divided into two groups with a TRS score of 3 serving as the cut-point, it is clear that teachers can roughly distinguish between those who are experiencing negative affect and those who are not. A Sheffe test confirms this finding that groups 1 and 2 (scores 1, 2 on the TRS) are significantly different from groups 3 and 4 ($p < .05$). It is likely that a significant finding was not found for

group 5 due to the small number of students in that cell ($n = 6$) and the lower CDI mean score than for groups 3 and 4.

It should be noted however, that of the 18 students who scored in the upper 10% (scored > 15) on the self report CDI only 3 were rated a 4 or 5 by their teachers. This would indicate that the teachers were not able to consistently or specifically identify those students who reported severe distress. It appears that the teachers were more likely to have agreement with the students who scored at the lower end of the CDI scale, that is, those who were not reporting emotional distress.

On the TRS, the teachers rated a total of 6 students as being severely depressed, that is with a score of 5. This represents approximately 3.5% of the population. Of those students rated with a 5: 5 were male and 1 was female; 5 were aged 9 and 1 was aged 10; 4 were enrolled in regular education classes and 2 were in the gifted program; 2 of the students identified a language other than English spoken at home.

Some interesting differences appear in those students who were rated as 4 by teachers. All 5 regular education students rated with a 4 were female, conversely all 5 gifted students were male. The regular education students were older with an average age of 11.2 (3 were aged 12, 1 was 11 and 1 aged 9), while the gifted average was 10.2 (1 was 9 and 2 each were aged 10 and 11). Two of the regular education students identified a language other than English while none of the gifted children did so.

There were no significant differences in the TRS scores relating to gender, program, language or age. That is the teachers did not identify or rate any of these subgroups as being more depressed.

Explanatory Style

The Children's Attribution Style Questionnaire (CASQ) was not fully completed by all respondents. Questionnaires with more than 10% of the form incomplete were not included in the analysis. Respondents for these questionnaires were all from grade 4. One may question whether these children were not able to complete the questionnaire because of the level of difficulty. Another possibility may be that it was perceived to be too long and they became bored or uninterested. At any rate of those 178 children who consented to participate, only three failed to complete all three questionnaires. The overall mean of 7.0 was remarkably similar to the CDI mean (7.0). However, because the scales are vastly different in terms of number of items, number of responses, and scoring, the similarity in scores is little more than a curious coincidence. The scores on the CASQ ranged from a low of -11 to a high of 20 with a standard deviation of 5.2.

There were no significant findings relating to CASQ and school ($t = -.32$, $p = .75$). In fact the two schools were quite similar. One school had a mean of 6.9 ($n = 122$) and a standard deviation of 5.6, while the second school had a mean of 7.2 ($n = 53$) and standard deviation of 4.4. This data supports the view that there is no difference in explanatory style between the children attending the two schools.

IS EXPLANATORY STYLE RELATED TO THE REPORTING OF NEGATIVE AFFECT?

The statistical tests suggest that there is a strong relationship between explanatory style and negative affect. A Pearson's r was used to assess the relationship between negative affect and explanatory style. A reasonably strong negative correlation was found ($r = -.59$, $p = .001$), indicating that higher levels of negative affect (high scores on the CDI) are related to a more pessimistic explanatory style (lower scores on the CASQ). Table 9 records the results of a regression analysis to determine whether a score on the CDI was predicted by a score on the CASQ. The regression analysis resulted in a significant finding, $F(1,173) = 92.2$, $p \leq .0001$, thus suggesting that a strong linear relationship exists. The Adjusted R Square indicates that the CASQ accounts for approximately 34.4% of the variance of the CDI scores.

Table 9

Regression Analysis: Whether Level of Depression is Predicted by Explanatory Style

Multiple R	.58959
R Square	.34762
Adjusted R Square	.34385
Standard Error	5.79927

Analysis of Variance

	DF	Sum of Squares	Mean Square
Regression	1	3100.27312	3100.27312
Residual	173	5818.26403	33.63158

$$F = 92.2, p \leq .0000$$

An analysis of the highest CDI scores and the lowest CDI scores highlights the nature of the relationship that exists between explanatory style and negative affect. The top 10% of CDI scores ($n = 18$) were those with a score of 16 and above (with a mean of 23.3). The CASQ mean for this group was 0.94, with a range of 8 to -11. Conversely, those students with the lowest CDI scores ($n = 19$) all scored 0 (indicating

a very low level of negative affect). The CASQ mean for this group was 12.58 (a very optimistic explanatory style) with a range from 7 to 20. Clearly a high CDI score (presence of negative affect) was related to a low CASQ score (pessimistic explanatory style) and a low CDI score (absence of negative affect) corresponded with a high CASQ score (optimistic explanatory style).

ARE THERE DIFFERENCES IN THE EXPLANATORY STYLES OF GIFTED AND NONGIFTED ELEMENTARY AGED CHILDREN?

The overall mean of the gifted students on the CASQ was 7.1 with a standard deviation of 5.6 and scores ranging from -11 to 20. The overall mean for nongifted students was 6.9 with a standard deviation of 4.8 and scores ranging from -3 to 20. Table 10 reports the results of a t -test between these two groups.

Table 10

Comparison of Mean Scores on the Children's Attributional Style Questionnaire By Program

<u>Program</u>	<u>n</u>	<u>M</u>	<u>SD</u>
For Entire Population	175	7.0	5.2
Regular Program	83	6.9	4.8
Gifted Program	92	7.1	5.6

No significant difference was found between children in the gifted and regular programs using a 2-tailed t -test.

The results reported in Table 10 demonstrate that there was no statistically significant difference between these two groups. The means were almost identical, 6.9 for the regular program students and 7.1 for the students in the gifted program. The t -test, $t(175) = -.23$, $p = .8$, confirms that these two groups did not score significantly different on the CASQ. As this question has not been explored elsewhere in the literature, this is an important finding. This result may be seen to corroborate the finding in the area of negative affect, that is that there are no significant differences in terms of depressive affect or cognitive styles between gifted and nongifted children.

ARE THERE GENDER AND AGE DIFFERENCES IN EXPLANATORY STYLE?

No significant differences were found by age or gender in the CASQ scores.

Table 11 summarizes the means and standard deviations for each age.

Table 11

Means and Standard Deviations By Age on the Children's Attributional Style Questionnaire

<u>Age</u>	<u>n</u>	<u>M</u>	<u>SD</u>
8	1	5.0	0.0
9	34	6.7	5.5
10	50	8.0	6.2
11	63	6.8	4.6
12	27	6.1	4.1
Total	175	7.0	5.2

The mean CASQ score for females was 7.1 with a standard deviation of 4.7 and a range of -6 to 20. The mean for males was 7.0 with a standard deviation of 5.6 and a range of -11 to 20. There were no statistical differences between these two groups. The female mean is very similar to that referred to in the literature of 7.0 (Seligman, 1990). The male mean of 7.0 is higher than the 5.0 reported in the

literature (Seligman, 1990), that is, the males in this sample are somewhat more optimistic than the male samples used to establish norms for this age group.

There were also no significant findings for CASQ scores by age. There has been little published data on this aspect on the CASQ but there is some suggestion that as students get older they will become more pessimistic (Seligman, 1990, p. 125). As it is believed that this trend does not begin until adolescence there was no evidence of this in these results.

Stressful Life Events

The Life Events Questionnaire (LEQ) was used successfully with these children in the form of a checklist where they were required to place a check mark or an X in a box next to the items which they had experienced in the past year. One grade four student chose to check every box on the form, so this questionnaire was not included for analysis. The overall mean score was 166.6 with a standard deviation of 137.8 and a range of 0 - 777.

There were no significant differences between LEQ scores and school, language, gender or age. There was however a significant finding in the area of LEQ and educational program. The mean for regular education students was 197.4 (sd = 164.5 and a range of 0 - 777), while the mean for gifted students was 138.1 with a standard deviation of 100.3 and a range of 0 - 545. A modest correlation of .22 (p = .01) was found between LEQ scores and educational program. Table 12 presents the

results of the t -test confirming this finding. Thus in this sample, regular education students reported more stressful life events than gifted children.

Table 12

Life Events Questionnaire Scores by Educational Program

Program	<u>n</u>	<u>M</u>	<u>SD</u>
Regular Program	85	197.4	164.5
Gifted Program	92	138.1	100.3
Total	177	166.6	137.8

$t = 2.87$, $df = 175$, $p = .005$, two-tailed test

This finding is confirmed by reviewing the mean LEQ score of each class. All of the top five mean class scores were regular education classes (there were 7 regular education classes). Only one gifted class had a mean higher than the overall mean (there were 8 gifted classes).

IS THERE A RELATIONSHIP BETWEEN STRESSFUL LIFE EVENTS AND NEGATIVE AFFECT?

Correlational data ($r = .22$, $p = .01$) confirms the existence of a relationship between the scores on the LEQ and the CDI. While not as strong as the one between the CDI and the CASQ there is a relationship between the number of stressful life events as reported by students and self report scores of negative affect.

This finding offers modest support to those who propose that children who endure stressful life events are more likely to experience psychological distress (Coddington, 1972a, 1972b; Compas, 1987; Johnson, 1986). However, this result ought to be interpreted with caution due to the weak positive correlation of .22 found between CDI and LEQ scores. In addition, because of the correlational nature of this study it cannot speak to the predictive value of stressful life events on future development of physical or psychological disruption. In fact, a regression analysis confirms that LEQ scores explained less than 5% of the variation of CDI scores.

IS THERE A RELATIONSHIP BETWEEN STRESSFUL LIFE EVENTS AND EXPLANATORY STYLE?

There were no statistically significant findings to confirm a relationship between LEQ and CASQ scores. Correlational testing resulted in a nonsignificant finding between these two instruments measuring stressful life events and explanatory style. There is no documentation of this result elsewhere in the literature so this could

prove helpful for future studies that examine the relationship between these two constructs.

WHAT RELATIONSHIP EXISTS AMONG STRESSFUL LIFE EVENTS, NEGATIVE AFFECT, AND EXPLANATORY STYLE?

A multiple regression analysis reveals that a statistical relationship exists among these three concepts. Using the CDI scores as the dependent variable, and CASQ and LEQ scores as independent variables, Table 13 reports the results.

Table 13

Multiple Regression Analysis: Scores on Life Events Questionnaire and Children's Attributional Style Questionnaire as Predictors of Scores on Children's Depression Inventory

Multiple R	.61
R Square	.38
Adjusted R Square	.37
Standard Error	5.7

Analysis of Variance

	DF	Sum of Squares	Mean Square
Regression	2	3369.06	1684.53
Residual	172	5549.48	32.26

$$F = 52.2, p \leq .0000$$

----- Variables in the Equation -----

Variable	B	SE B	Beta	T	Sig T
LEQ	.009159	.003173	.173934	2.886	.0044
CASQ	-.794375	.082696	-.578873	-9.606	.0000
(Constant)	10.96329	.913004		12.008	.0000

Given that no significant correlation was found between CASQ and LEQ scores, this finding raises questions about the nature of the relationship between these three variables. A regression analysis using CASQ as the sole independent variable of CDI scores revealed that CASQ explained over 34% of the variation. However, as can be seen in Table 13 when LEQ is added to the equation this raises to slightly over 37%. The LEQ scores appear to add little to the equation.

One possibility is that explanatory style functions as a mediating variable. In this scenario, stressful life events, by themselves, are not sufficient to result in the expression of negative affect, but only when interacting with a pessimistic explanatory style. As this study did not examine other potential mediating variables (eg. social support, coping strategies) it is not possible to determine the relative importance that explanatory style might hold.

Summary

This investigation has many interesting significant and nonsignificant results. In the area of negative affect, the mean score for this sample was considerably lower than that reported elsewhere in the literature. Further, the theoretical arguments suggesting that gifted children were at risk for negative affect was not substantiated by the data in this investigation. Teachers seem able to identify mentally healthy children but are less likely to do so with children who self report negative affect.

The CASQ appears to have posed some difficulty for some students, as three children were unable to complete it, all of them in grade 4. This suggests some

caution must be exercised in using the instrument with children as young as 9. This study confirmed the strong significant relationship between explanatory style and negative affect that is reported elsewhere in the literature (Kaslow, Rehm & Siegel, 1984; Nolen-Hoeksema, Seligman & Girgus, 1986; Seligman et al, 1984). There were no significant findings between explanatory style and education program, age or gender.

The LEQ was a useful checklist to identify the amount of stress that the students had experienced in the previous year. There were no significant findings between LEQ and school, language, gender or age. Regular education students reported significantly more stressful life events than did gifted education students. A weak correlation was found between CDI scores and LEQ scores and this relationship contributed marginally to a regression analysis including CASQ, LEQ and CDI scores.

CHAPTER 5

Discussion

Overview

This descriptive survey had two foci which formed the basis for the research that was conducted. The first examined negative affect in children and sought to determine the prevalence as well as investigating the similarities and differences between two groups (gifted and regular education students). The second strand examined two possible correlates of negative affect, specifically, explanatory style and life events. The study was conducted due to the relative lack of Canadian data pertaining to elementary aged children, and especially gifted children. In addition, there was a desire to ascertain what factors might be predictors of negative affect in children as knowledge in this area could prove beneficial in helping children when confronted with this experience and also in the prevention of this phenomenon.

Discussion of Findings

Negative Affect

Prevalence of negative affect in gifted and regular education children. In comparison with other studies on this age group with a non-clinic sample (Doerfler et al., 1988; Finch, Saylor & Edwards, 1985; Smucker et al., 1986) and in comparison with the normative data offered by Kovacs (1992), the CDI means in this study are considerably lower, indicating that respondents in this investigation reported lower levels of negative affect. Doerfler et al. found an overall mean for children in grades

4, 5 and 6 of 8.46 ($n = 328$), Finch, Saylor and Edwards report a M of 9.67 ($n = 863$) for the same grades and Smucker et al. report a M of 8.67 for children in grades 3 - 6 ($n = 615$). Kovacs (1992) reports a M of 9.81 for children between the ages of 7 - 12. It is possible that the small sample of this current investigation has resulted in the lower mean that has been reported (7.0). However, the fact that there were no significant differences between schools and between regular and gifted education students would indicate that the mean obtained represents accurately the composition of this sample. While it is not possible to generalize based on the results of this one study, it will be interesting to note if future Canadian studies report similar findings.

An important finding of this study is that there is no significant difference between the CDI scores of gifted children and regular education students. In fact, there was a clear trend indicating that mean for gifted education students of 6.1 was different from the mean for regular education students of 7.9, $t(176) = 1.67$, $p = .10$. That is, contrary to current theoretical formulations, the gifted students were reporting lower levels of negative affect. This raises a question as to the validity of these theoretical formulations. Rather than a population at risk, gifted children appear to be at least as psychologically hardy as regular students.

There is no reason to suppose that this is a spurious or unreliable finding. Some would speculate that there was a response bias whereby gifted students because of their advanced capabilities would be able to present socially desirable responses. If such was the case, one would expect a greater difference in the scores and certainly a significant finding. In fact there is little evidence that gifted children have a need to

present in a favourable or socially desirable fashion. It could be argued that the exact opposite is true, that gifted children enjoy being perceived as unique and different in the eyes of adults and peers with little concern for presenting a false front.

Some caution should be exercised in interpreting these results given that there is some evidence that the gifted and regular education students may represent different populations. All regular education students resided within the same community, while the gifted students are transported to the school from all over the city. It is also possible that there are differences in the two populations according to family income, family composition (single or two parent family), and family cohesiveness. As these variables were not identified, it is difficult to assess what differences might exist.

Two factors surfaced from the results of the study which also indicate that these may represent different populations. First, there was a significant difference between these two groups in the area of stressful life events, with regular education students indicating a greater number of life stressors. Second, the gifted population were more likely to identify a language other than English spoken at home. This may mean that there were cultural factors that came into play with scores of gifted students on these measures.

The results of the CASQ (which does not include a way of determining a socially desirable response) also provides confirmation of this finding. While not statistically significant, the gifted students scored slightly more positively on the CASQ which is essentially the same situation for the CDI. As these measures correlated strongly, this could be confirmation that the gifted and regular education

students do not differ with respect to negative affect or explanatory style.

This finding runs counter both to early and current formulations in the field of gifted psychopathology. Terman and Chase (1920) offered the view that gifted children because of their advanced cognitive abilities would be psychologically healthier. Recently, a number of authors have offered theoretical arguments suggesting that these children are more vulnerable to psychopathology, (Bernardo, 1990; Kaiser & Berndt, 1985; Kline & Meckstroth, 1985; Schauer, 1976; Yewchuk & Jobagy, 1993), especially depression and suicide (Delisle, 1986, 1988; Farrell, 1989; Guetzloe, 1988; Hayes & Sloat, 1989; Lajoie & Shore, 1981; Leroux, 1986; McCants; 1985; Weisse, 1990; Willings & Arseneault, 1986). The empirical findings of this investigation, contrary to the theoretical arguments, give an indication that gifted children are more similar to their nongifted peers than they are different. Perhaps their advanced cognitive abilities are not the emotional liability that some have thought, likewise advanced cognitive abilities are not the buffer from emotional distress that early theoretical work suggested.

This does not suggest that gifted children are immune from psychological disruption. Rather they appear to experience psychosocial dysfunction at about the same rate as nongifted children. Gifted children may also have different emotional experiences because of their advanced cognitive abilities and this may place additional burdens upon them. However, these increased pressures do not appear to become manifest in symptoms of negative affect at rates any different from children with average intelligence.

Gender and age differences in the reports of negative affect. The findings of this study lend support to those reports which have identified no gender difference in level of negative affect (Gates, Lineberger, Crockett & Hubbard, 1988; Haley, Fine, Marriage, Moretti & Freeman, 1985; Helsel & Matson, 1984; Kovacs, 1983). Although the female mean was slightly higher (7.4), it was not significantly different from the male mean (6.7). In referring only to those studies that have sampled a school population; Smucker et al. (1986) found no gender differences, Finch, Saylor and Edwards (1985) noted a gender effect (females scoring lower than males), and Doerfler et al. (1988) also report a significant gender effect with females scoring higher than males (although this was much more significant in later grades). This remains an area of considerable uncertainty.

In terms of age effects this study found no age differences. The children between the ages of 9-12 were fairly consistent in their scores on the CDI. One might have expected an increase in the scores of 12 year old students due to the approach of adolescence and the concern that some authors have expressed that early adolescents may be at risk for higher levels of depression (Albert & Beck, 1975), especially among females (Links, Boyle, & Offord, 1989). However this was not confirmed. In fact the 12 year old mean was lower than any other (excluding the one 8 year old child). This is consistent with the findings of Smucker et al. (1986) who reported a lower mean for grade 6 students than students in the previous three grades (unfortunately, it is not known if this is a significant finding). Finch, Saylor & Edwards (1985) identify a small but significant grade effect ($p < .02$), although

difficult to interpret it appears that younger children scored as less depressed on the CDI than older children. Doerfler et al. (1988) also report a significant grade effect ($p < .01$) with grade 4 students scoring higher on depression than later grade students. The finding of this study, while not significant, also points to younger students (grade 4) reporting higher levels of negative affect than older students (grade 6).

Teacher and student self report of negative affect. The findings demonstrated a moderate relationship between the teacher rating of a student's negative affect and student self report. The correlation of .39 is significant at the .001 level (1 tailed). There were no significant differences between the way teachers of gifted and nongifted students rated their children, which is different to the finding of Bartell and Reynolds (1985) who found that teachers rated gifted children as less depressed. This moderate relationship between teacher scores and student scores appears to give support to the notion that teachers can be valuable sources of information in the affective area. This should be interpreted with caution given the lack of congruence with the highest 10% of scorers on the CDI, that is, the children who rated themselves as most depressed. Of these 18 children, teachers gave only three a rating of 4 or 5 on the TRS. Thus teachers appear to be better able to recognize students who scored in the lower range on the CDI. This calls into question their ability to accurately determine which students may be experiencing emotional distress.

Explanatory Style

Explanatory style and negative affect. The strong negative correlation (-.59) which is significant at the .001 level highlights the relationship between negative affect and explanatory style. This replicates the findings of other studies (Kaslow, Rehm & Siegel, 1984; Nolen-Hoeksema, Seligman & Girgus, 1986; Seligman et al., 1984). It furthers the research by including the gifted student population and lends empirical support from data gathered outside the United States. A regression analysis with a $p \leq .0001$ underscores that these two concepts are related.

It is beyond the scope of this investigation to deal with causal factors, that is whether negative affect causes a negative explanatory style or whether the reverse is true. Nevertheless the fact that they coexist does raise some clinical issues relating to the treatment of negative affect. In the counselling situation, the explanatory style of a child provides good information which is readily accessible. As a point of intervention, this presents an opportunity for social workers to intervene with children who may be experiencing negative affect.

Explanatory style of gifted and regular education students. There is no evidence to suggest that gifted and nongifted children have different explanatory styles. Consistent with the findings on negative affect, the gifted children had a slightly more optimistic score on the CASQ but with no significant difference. This finding differs from the perception that gifted children are likely to hold self-views that are different from their non-gifted peers. "It appears that these [gifted] children

are confused by their abilities, bored with school, burdened with quantity of work, and distressed by the expectations of their parents and teachers (Ford, 1989, p. 134)." And further, "the gifted are more likely to be hurt by the frustrations they experience than children of more normal abilities (Willings & Arseneault, 1986, p. 11)." The results of this investigation do not confirm these views. Instead, the gifted children who participated in this study gave no indication that they held any different cognitive patterns than regular education children. Clearly, the results of this study are not generalizable to the areas of self-image, self-esteem and locus of control, nevertheless, one would have expected that had the gifted children represented a dramatically different group vis-a-vis these areas then there would have been some carryover to their explanatory style which seems to be a related construct. As a minimum, this study suggests that there is a desperate need for empirical evaluation of the theoretical arguments being presented with respect to gifted children and their cognitive self organization.

Gender and age differences in explanatory style. The fact that there were no age or gender differences on the CASQ are interesting findings given the literature. Specifically the norms cited by Seligman (1990), for 9 to 12 year old children, clearly indicate a much lower mean score for males (5.0) than females (7.0). While Seligman considers males to be slightly less optimistic this was not the case in the current study. Males and females both had means around 7.0 (males - 7.0, females - 7.1). There are several factors that lend strength to this result.

First, in the study there were more males (103) than females (75). Thus the result cannot be attributed to a smaller number of males affecting the analysis. Second, there were no significant differences in explanatory style by school, class (that is, classroom within the school), program (gifted versus regular education), or primary language spoken at home. With these nonsignificant findings, it could be argued that factors such as class (socioeconomic status), ethnicity, or income level do not explain the higher male mean in this study as opposed to American norms. It has been noted earlier that the home school area may represent a different population in the study, therefore, if socioeconomic class had been a positive factor, then one would have expected a higher or lower CASQ score for the gifted population, as it may represent different socioeconomic or class composition. Because of the relatively low numbers involved in the language area, one cannot conclusively rule this out as a factor, nevertheless there was no indication of any significant differences. One is left with the simple statement that Canadian boys scored more optimistically than American males of the same age.

There were no age differences found in this investigation and this would appear to be consistent with norms for the scale. It has been noted that children in adolescence and later were likely to score in a more pessimistic fashion, and that females are more likely to do so than males (Seligman, 1990).

Stressful Life Events

Stressful life events and negative affect. The findings point to a significant, positive relationship between negative affect and stressful life events. While correlationally not as strong ($r = .22, p < .01$) as explanatory style and negative affect, there was nevertheless a relationship between these two variables. The regression analysis indicated that although significantly related ($F = 8.8, p < .0034$), the LEQ accounted for only 5% of the variability in CDI scores. This does not represent a strong explanation of the variance. It is evident that life events are related to the experience of negative affect but are insufficient in fully explaining the expression, or etiology, of this phenomenon. This finding could mean that the LEQ is in need of revision (developed in 1972, revised 1984) as it does not tap into all forms of stress that students experience. It may be that "daily hassles" represent more of a stressful situation than do more major life events for children of this age.

Stressful life events and explanatory style. There were no significant findings linking attributional style with stressful life events. This suggests that stress by itself is not necessarily related to negative cognitive styles. A theoretical argument could be made that increased stress would result in a more pessimistic outlook on life. However, such was not the case in this investigation, instead it appears that explanatory style is independent of stressful life events. This means that two students experiencing the same stressors could react quite differently depending on their explanatory style. Stressful life events need to be interpreted within a context before

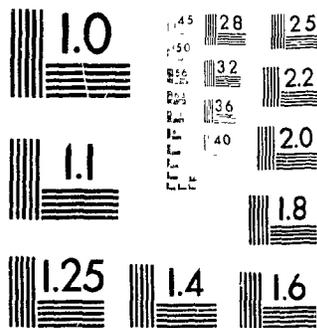
their effects can be estimated. One context appears to be the cognitive area of explanatory style.

Explanatory style, stressful life events and negative affect. Multiple regression analysis demonstrated that CDI scores were significantly related to LEQ scores and CASQ scores. However, stressful life events added only marginally to the explanation of variance. As a result, a review of scores was undertaken to determine if there was any evidence to support explanatory style as a mediating variable. The purpose of this was to see whether high scores on the LEQ (high levels of stress) combined with a high CASQ score (indicating a positive explanatory style) resulted in low CDI scores (low levels of depression).

The highest 10% of LEQ scores represented a cutoff of 366 and above. The mean LEQ score for this group was 479.8 which is more than two and a half times the overall mean LEQ of 166.6. The mean CDI score for this group was 10.0 (approximately 50% higher than the overall mean of 7.0). The CASQ mean was 7.0 which is the same as the mean for the entire population of 7.0. This result highlights two findings. First is the clear evidence that stressful life events do not on their own account for high levels of negative affect. That is, despite very high scores in the area of stressful life events, students reported only a moderately higher level of negative affect. Second, it confirms the mediating role of explanatory style. High levels of life stress when interacting with a positive explanatory style will result in only modest expressions of negative affect.

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This view is further corroborated by an examination of the top 5% of CDI scores (cutoff of 21 and above). The mean CDI score for this group was 28.8 ("very much above average" range), the mean LEQ score was 135.2 (actually lower than the overall mean of 166.6!) and the mean CASQ score was -1.7 (very pessimistic). Therefore, the highest scorers in negative affect reported a lower mean score on stressful life events than the overall mean, but had a very pessimistic score in explanatory style. This dramatically underscores the importance of explanatory style in the experience of negative affect, as well as supporting its' mediating function with stressful life events.

Limitations

One limitation of this study is the possibility that those students who were unable to participate (due to personal or parental refusal) may represent a higher risk for negative affect. There were also eight children absent on the day of administration. As school attendance is related to mental as well as physical health factors it could be argued that their presence would have resulted in higher scores of negative affect. However, it would also seem reasonable to conclude that this pattern is evident in all studies involving this type of sample.

A greater concern is the number of children who were unable to participate due to parental refusal. A full 37% of children eligible to participate were not able to, due to parental lack of response. Of specific interest is the difference in response rates between parents of gifted (75% agreeing to participate) and parents of regular

education children (54.5% agreeing to participate). It would appear that parents of children in the gifted program were more likely to agree to their child's participation than parents of regular education children. This may be reflective of their general increased involvement in their children's schooling. The overall response rate approximates the 60% obtained in a similar study with this population (Bartell & Reynolds, 1985), nevertheless, the response rate of 63% represents a reason for interpreting the results with caution.

There are many possible reasons for parental lack of response including: lack of interest; form was not taken home; dislike of research; form was completed but not returned by the student; a need to protect their child from this experience; not wanting their child to miss school. It should be noted that no parents indicated their reluctance to participate to the investigator. Several phone calls were received requesting additional information or clarification and at the end of the conversation all responded favourably.

There is a possibility that the two schools selected for this study may not be representative of the overall general population. The schools are in close proximity and share similar demographic characteristics. It is a low to middle class area in an established part of the city. The population has aged and this is reflected in declining enrolment in the schools. It is interesting to note that the gifted education children were more likely to report a language other than English spoken at home. For these reasons the two schools may be unrepresentative of the broader Scarborough community.

The sample size of 178 calls for some caution when generalizing from the results. This is especially true as one breaks down the statistics by age, grade, language and into further subgroups such as 9-year old female gifted students ($n = 2$). Certainly it was large enough for an exploratory study and the results can lead to future investigations. However, it is not large enough to make broad and definitive conclusions.

It should be noted that the criteria used to identify gifted students will vary among school boards. The Scarborough Board of Education has established that students eligible for the gifted program must have achieved a minimum score of 140 on any subtest on the WISC IV. This is a higher threshold than some other school boards, and in some jurisdictions intelligence tests have been abandoned in favour of other criteria. In Scarborough, students are tested for the gifted program on an individual basis when a request is made by either the parent or classroom teacher. That is, there is no universal testing of students and it is possible that there were some students in regular classes in this investigation who would have met the criteria for the gifted program had they been tested.

The methodology employed does not allow for causal statements or predictions over time. The cross-sectional survey method provides a static, correlational description of the sample on the variables explored. Consequently it is not possible to determine if explanatory style is causally related to negative affect in this study, or if low scorers on explanatory are likely to experience an episode of negative affect in the future.

Implications

Gifted Children

As mentioned earlier, the results of this study indicate that gifted children are not any more likely to evidence negative affect than regular education children (in spite of theoretical formulations to the contrary). It is important to have theoretical views supported by empirical data. Too often, theory is generated on the basis of anecdotal evidence, personal experience or inaccurate information. For gifted children and their parents, it is hoped that this represents one small step in the removal of the "at risk" label that paints the entire group. This is important because when a group is labelled in this way, it can result in aberrant behaviour being considered normal. When this happens, treatment is delayed because the attitude that is put forward is "they're just like that". Conversely, it could cause parents or teachers to be over-vigilant with the possibility that they end up seeing problems that don't exist. What this study suggests is that gifted children are not prone to negative affect (by virtue of their advanced cognitive abilities) and those that do experience this phenomenon need help.

Regular Education Children

The relationship of explanatory style, stressful life events and negative affect suggests that more could be done in identifying those students who may be at risk for negative affect. The study is clear in its finding that stressful life events are not adequate in explaining the existence of negative affect in children. The children

participating in this study were more likely to experience negative affect if they held a pessimistic explanatory style. Those children who are at risk for negative affect are not necessarily those who are experiencing considerable life stress, but rather those that have a cognitive style that explains events in a pessimistic way. This suggests that external events are not experienced uniformly by all children but rather the expression is dependent upon internal cognitive resources.

There is considerable room for optimism given the results on the negative affect of children involved in this study. Not only was the overall mean much lower than that reported elsewhere in the literature, but there were fewer children reporting high levels of negative affect. It will be interesting to find out if these findings are confirmed in further Canadian investigations.

Educators

The results show that teachers can provide valuable information on the emotional states of their children. Although they were not very accurate at identifying high scorers on the CDI (more self rated depressed students), teachers did indicate a positive orientation to assessing the mental health of their students. It should be noted that they were much more successful at identifying students who were not evidencing any difficulties in the area of negative affect than they were at identifying those students who were experiencing higher levels of negative affect.

The teachers who took part in the study were eager and responsive, and anxious to find out the results so that they could initiate followup in their classrooms.

This enthusiasm suggests that they may be receptive to information that could help them in their evaluation of students' general mental health. At the elementary school level, teachers may be with their students up to four hours every day. With the recent thrust on education of the whole child, teachers can be used not only as evaluators of children's mental health but also as agents of change. Although many feel burdened by their current responsibilities they can be helped to see that small changes in their behaviour and verbal interactions can lead to significant changes in students. For example, encouraging pessimistic students to ascribe negative events to transient, specific and external causes can have a profound impact but takes relatively little time to actually administer.

In terms of curriculum for classroom teachers, there is an increasing emphasis on mental health concerns, peer relationships and personal life management strategies. Even at this level there are units of study which could incorporate elements of "cognitive hygiene". Students could be taught the impact of maladaptive explanatory styles and the benefits of more positive or optimistic explanatory styles. There is currently enough material available at an age appropriate level to meet these needs (Dweck, 1975; Seligman, 1990).

School Social Workers

The findings of this study are particularly relevant to school social workers. As mental health professionals it is important to treat individual students independent of stereotypical formulations. To generalize on the basis of limited previous

involvement or on the basis of past experience may result in incorrect assumptions. Such is the case with gifted students. It is common to participate in discussions in which individuals with advanced cognitive abilities are described in negative terms. Gifted individuals are considered at risk for mental health difficulties and this appears to be a restatement of the belief that "the line between brilliance and insanity is a thin one".

The cognitive-behavioural perspective provides a framework for assessment and a focus for clinical intervention (Beck, Rush, Shaw, & Emery, 1979; Lewinsohn, 1974; Rehm, 1977; Seligman, 1975, 1990). This study has illustrated that cognitive style is related to emotional states and behaviour in children. As such this area provides a readily accessible forum for gathering information and for planning interventions. The cognitive-behavioural approach has had limited impact on the field of social work. School social work practice is an eclectic field which could benefit from the cognitive-behavioural perspective, especially as these interventions become more specified in the form of treatment manuals.

The explanatory style of students can be identified by the CASQ and the content of the explanatory style can be accessed and monitored by children. Intervention would focus on helping children change their pessimistic explanations into more optimistic ones. One model for helping children is to train them to be "Personal Cognitive Scientists" who seek out, challenge and change the negative explanations that are interfering with their functioning in the academic, social and mental health domains.

There has been some discussion of cognitive-behavioral applications to social casework (Lantz, 1978), some have focused on working with depressed clients (Barber, 1986; Combs, 1980; Simons & Miller, 1987), still more have specifically narrowed their focus to work with depressed children (Allen-Meares, 1987; Zimmerman, 1988). This study highlights the need for more treatment specificity in the area of explanatory style retraining of elementary school aged children. An overview article outlining an attributional retraining regimen for adults has been located (Fosterling, 1985). However, no empirical reports were located documenting the efficacy of the type of program suggested by Seligman (1990).

Future Research

The availability and ease of administration of a CDI and CASQ allow for a wide range of empirical study. These instruments could be used to evaluate the effectiveness of programs designed to change the explanatory style of children. Such research activity could include: single subject research (confirming that changes in explanatory style are related to changes in negative affect), clinical experimentation (evaluating different treatment approaches or parts of a treatment package) and longitudinal studies (does explanatory style predict an experience of negative affect? can changes to explanatory style be maintained over time?) would all contribute to the further development of this emerging field.

The distinct lack of documented treatment programs for elementary aged children highlights the need for a concerted effort in this area. Especially needed are

programs that are child centred rather than simply scaled down adult versions for children. Drawing from existing sources on explanatory style (Dweck, 1975; Fosterling, 1985; Seligman, 1990), placed in a social work context (Barber, 1986) and with a developmental perspective (Cicchetti & Schneider-Rosen, 1984; Digidon & Gotlib, 1985) and presented in a format that is tailored to younger children, such a program would fill desperate need.

Building on the correlational data, there is a clear need to develop understandings as to the etiology of, and interaction between, negative affect and explanatory style. Does explanatory style predict negative affect? Or does negative affect change the cognitive patterns of individuals? Stressful life events did not prove to be a major contributor to the presence of negative affect in students. Future research should focus on whether this is due to: an instrument (LEQ) that is in need of revision; the resiliency of young children who are able to withstand stressful events without emotional distress; a need to reconceptualize what is stressful for students.

While this study explores the issue of mental health and the gifted, it is incomplete in at least two ways. First, this is a cross-sectional study which is unable to determine if there are changes over the life span of gifted individuals. A longitudinal study would be able to determine if gifted children are more likely to experience a mental health problem over a longer period of time.

Second, because this is a descriptive survey there is a need to replicate the results with this age group in different settings. This is essential due to the differences that seemed to emerge as the results were compared with other studies. Controlling

variables such as income, class, ethnicity and location (urban as opposed to rural) would add to these future investigations.

Some of the younger children appear to have had difficulty with parts of the CASQ. This has not been reported elsewhere in the literature. It is difficult to know exactly what caused these difficulties (the format, level of the language, too long). Nevertheless, these difficulties need to be addressed. Large scale administrations of the CASQ with younger children (8 and 9-year olds) could present problems for students who are reluctant to seek clarification of language, or who feel too rushed to adequately complete the questionnaire. At any rate, there is a need to assess the reliability, validity and appropriateness of the CASQ for younger children.

In this study, life events did not present as a major contributor to negative affect in children. This could be a result of the scale being out of date and in need of revision. Since the Life Events Questionnaire appeared originally in 1972 and revised in 1984, there has been additional work suggesting that there may be a need to conceptualize stress in a different way for children. It may be of value to have children determine what situations and experiences are stressful, this could range from "daily hassles", to traumatic life events to developmental events. In addition, it may be that children "bounce back" more quickly than adults from these events, thus making the time frame of one year used on the LEQ too long for this age group.

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APPENDIXES

APPENDIX A

April 6, 1994

Dear Parents:

I am a Doctoral candidate at Wilfrid Laurier University and a social worker with the Scarborough Board of Education. As part of our continuing efforts to better understand the needs of Scarborough students, a study has been approved to be carried out at _____ Jr. P.S. All students enrolled in grades 4 - 6 will be asked to complete three questionnaires. In addition, the teacher will be asked to complete a questionnaire on each student in their class.

The study is entitled "Negative Affect, Explanatory Style and Stressful Life Events in an Elementary School Population". It is interested in the overall wellbeing of students in this age group. There will be no records kept on any individual student. This project is designed to be confidential and information that your child gives will not be made public or identified in any way. However, the questionnaires will not be completed anonymously in order to ensure that parents can be contacted if an individual child is in need of assistance.

I would ask that you sign the attached sheet and return it to the school by
April 8, 1994.

Thank you for your cooperation and if you would like more information on any aspect of the project please contact me at 396-7951.

David Johnston, MSW

APPENDIX B

INFORMED CONSENT FOR PARTICIPATION IN RESEARCH STUDY

I understand that my child is being asked to participate in a study entitled "Negative Affect, Explanatory Style and Stressful Life Events in an Elementary School Population" which is being conducted by David Johnston (a Doctoral candidate at the Faculty of Social Work, Wilfrid Laurier University) under the supervision of Dr. Robert Basso (Associate Professor, Faculty of Social Work, Wilfrid Laurier University).

The purpose of this study is to better understand the relationships that might exist between the feelings, the internal explanations that students have for events that happen in their lives and the stresses of students in grades 4 to 6. This would enable us to identify those students or groups of students who might need assistance. It could also help us identify those factors that contribute to the development of positive and negative feelings in children of this age.

I understand that my son and/or daughter will be asked to complete three questionnaires that will take approximately 30 minutes. The first questionnaire will ask questions about how students have been feeling in the past two weeks. The second questionnaire focuses on how students explain events that happen in their lives. The third form is a checklist that records 36 life events, students check off those ones that they have experienced. In addition, the teacher will be asked to complete a questionnaire on each student in their class.

I understand that my child's participation is voluntary. I may refuse to participate or withdraw participation in this study if I so desire and so may my child. During the time that these questionnaires are administered the investigator and other support staff will be available to answer any questions or concerns that my child may have.

I understand that all research records will be kept confidential, that no information will be made public and that all records will be held solely by the investigator and will be destroyed as soon as the study is complete. Not all information will be completed anonymously in order that I may be contacted if my child is identified as being in distress. At that time I will be informed of suggestions for help.

I understand that I am free to contact the investigator and to have any questions that I have answered. I am also able to contact the investigator in order to get feedback on the overall results.

Research Investigator -- David Johnston, (416) 396-7951
Thesis Supervisor -- Dr. Robert Basso, Faculty of Social Work,
Wilfrid Laurier University 1-519-884-1970

APPENDIX C

RESEARCH STUDY

Date: _____

Name: _____

Grade: _____

female male

Age: _____

(circle one)

Regular Class Special Class (gifted)

(circle one)

Language Spoken At Home: _____

I agree to complete the attached questionnaires: yes no

(circle one)

Student Signature _____

APPENDIX D

TFQ

(Thoughts and Feelings)

NAME: _____

DATE: _____

KIDS SOMETIMES HAVE DIFFERENT FEELINGS AND IDEAS.

THIS FORM LISTS THE FEELINGS AND IDEAS IN GROUPS. FROM EACH GROUP, PICK ONE SENTENCE THAT DESCRIBES YOU BEST FOR THE PAST TWO WEEKS.

AFTER YOU PICK A SENTENCE FROM THE FIRST GROUP, GO ON TO THE NEXT GROUP.

THERE IS NO RIGHT ANSWER OR WRONG ANSWER. JUST PICK THE SENTENCE THAT BEST DESCRIBES THE WAY YOU HAVE BEEN RECENTLY. PUT A MARK LIKE THIS X NEXT TO YOUR ANSWER. PUT THE MARK IN THE BOX NEXT TO THE SENTENCE THAT YOU PICK.

HERE IS AN EXAMPLE OF HOW THIS FORM WORKS. TRY IT. PUT AN X NEXT TO THE SENTENCE THAT DESCRIBES YOU BEST.

EXAMPLE:

- I READ BOOKS ALL THE TIME
- I READ BOOKS ONCE IN A WHILE
- I NEVER READ BOOKS

REMEMBER, PICK OUT THE SENTENCES THAT DESCRIBE YOUR FEELINGS AND IDEAS IN THE PAST TWO WEEKS.

1. I AM SAD ONCE IN A WHILE
 I AM SAD MANY TIMES
 I AM SAD ALL THE TIME

2. NOTHING WILL EVER WORK OUT FOR ME
 I AM NOT SURE IF THINGS WILL WORK OUT FOR ME
 THINGS WILL WORK OUT O.K. FOR ME

3. I DO MOST THINGS O.K.
 I DO MANY THINGS WRONG
 I DO EVERYTHING WRONG

4. I HAVE FUN IN MANY THINGS
 I HAVE FUN IN SOME THINGS
 NOTHING IS FUN AT ALL

5. I AM BAD ALL THE TIME
 I AM BAD MANY TIMES
 I AM BAD ONCE IN A WHILE

6. I THINK ABOUT BAD THINGS HAPPENING TO ME ONCE IN A WHILE
 I WORRY THAT BAD THINGS WILL HAPPEN TO ME
 I AM SURE THAT TERRIBLE THINGS WILL HAPPEN TO ME

7. I HATE MYSELF
 I DO NOT LIKE MYSELF
 I LIKE MYSELF

8. ALL BAD THINGS ARE MY FAULT
 MANY BAD THINGS ARE MY FAULT
 BAD THINGS ARE NOT USUALLY MY FAULT
9. I DO NOT THINK ABOUT KILLING MYSELF
 I THINK ABOUT KILLING MYSELF BUT I WOULD NOT DO IT
 I WANT TO KILL MYSELF
10. I FEEL LIKE CRYING EVERY DAY
 I FEEL LIKE CRYING MANY DAYS
 I FEEL LIKE CRYING ONCE IN A WHILE
11. THINGS BOTHER ME ALL THE TIME
 THINGS BOTHER ME MANY TIMES
 THINGS BOTHER ME ONCE IN A WHILE
12. I LIKE BEING WITH PEOPLE
 I DO NOT LIKE BEING WITH PEOPLE MANY TIMES
 I DO NOT WANT TO BE WITH PEOPLE AT ALL
13. I CANNOT MAKE UP MY MIND ABOUT THINGS
 IT IS HARD TO MAKE UP MY MIND ABOUT THINGS
 I MAKE UP MY MIND ABOUT THINGS EASILY
14. I LOOK O.K.
 THERE ARE SOME BAD THINGS ABOUT MY LOOKS
 I LOOK UGLY

REMEMBER, DESCRIBE HOW YOU HAVE BEEN IN THE PAST TWO WEEKS.

15. I HAVE TO PUSH MYSELF ALL THE TIME TO DO MY SCHOOL WORK
 I HAVE TO PUSH MYSELF MANY TIMES TO DO MY SCHOOL WORK
 DOING SCHOOL WORK IS NOT A BIG PROBLEM
16. I HAVE TROUBLE SLEEPING EVERY NIGHT
 I HAVE TROUBLE SLEEPING MANY NIGHTS
 I SLEEP PRETTY WELL
17. I AM TIRED ONCE IN A WHILE
 I AM TIRED MANY DAYS
 I AM TIRED ALL THE TIME
18. MOST DAYS I DO NOT FEEL LIKE EATING
 MANY DAYS I DO NOT FEEL LIKE EATING
 I EAT PRETTY WELL
19. I DO NOT WORRY ABOUT ACHES AND PAINS
 I WORRY ABOUT ACHES AND PAINS MANY TIMES
 I WORRY ABOUT ACHES AND PAINS ALL THE TIME
20. I DO NOT FEEL ALONE
 I FEEL ALONE MANY TIMES
 I FEEL ALONE ALL THE TIME
21. I NEVER HAVE FUN AT SCHOOL
 I HAVE FUN AT SCHOOL ONLY ONCE IN A WHILE
 I HAVE FUN AT SCHOOL MANY TIMES

22. I HAVE PLENTY OF FRIENDS
 I HAVE SOME FRIENDS BUT I WISH I HAD MORE
 I DO NOT HAVE ANY FRIENDS
23. MY SCHOOL WORK IS ALRIGHT
 MY SCHOOL WORK IS NOT AS GOOD AS BEFORE
 I DO VERY BADLY IN SUBJECTS I USED TO BE GOOD IN
24. I CAN NEVER BE AS GOOD AS OTHER KIDS
 I CAN BE AS GOOD AS OTHER KIDS IF I WANT TO
 I AM JUST AS GOOD AS OTHER KIDS
25. NOBODY REALLY LOVES ME
 I AM NOT SURE IF ANYBODY LOVES ME
 I AM SURE THAT SOMEBODY LOVES ME
26. I USUALLY DO WHAT I AM TOLD
 I DO NOT DO WHAT I AM TOLD MOST TIMES
 I NEVER DO WHAT I AM TOLD
27. I GET ALONG WITH PEOPLE
 I GET INTO FIGHTS MANY TIMES
 I GET INTO FIGHTS ALL THE TIME

Thank you for filling out this form !!!!!

APPENDIX E

RSQ

(How Children Respond to Situations)

NAME: _____

AGE: _____

THIS QUESTIONNAIRE ASKS YOU A BUNCH OF QUESTIONS ABOUT WHAT YOU THINK. EACH QUESTION IS LIKE A LITTLE STORY, AND FOR EACH STORY THERE ARE TWO WAYS YOU MIGHT REACT. YOU'RE SUPPOSED TO CHOOSE ONE WAY OR THE OTHER, THE ONE THAT'S CLOSEST TO THE WAY YOU'D REALLY FEEL IF THAT PARTICULAR THING HAPPENED TO YOU.

SO IMAGINE THAT EACH OF THESE LITTLE STORIES HAPPENED TO YOU, EVEN IF THEY NEVER HAVE. AND THEN PUT AN "X" IN THE BOX NEXT TO THE ANSWER THAT BEST DESCRIBES THE WAY THAT YOU WOULD FEEL.

HERE IS A SAMPLE QUESTION:

YOUR FRIEND GIVES YOU A PIECE OF GUM

(now put an "X" in the box beside the answer that best describes what you would be thinking)

I HAVE VERY NICE FRIENDS

MY FRIEND WAS IN A GOOD MOOD TODAY

OKAY, NOW YOU ARE READY TO TRY THE REST OF THE QUESTIONS.

RSQ

How Children Respond To Situations

1. YOU GET AN "A" ON A TEST,
 - I am smart.
 - I am good in the subject that the test was in.

2. YOU PLAY A GAME WITH SOME FRIENDS AND YOU WIN,
 - The people that I played with did not play the game well.
 - I play that game well.

3. YOU SPEND A NIGHT AT A FRIEND'S HOUSE AND YOU HAVE A GOOD TIME,
 - My friend was in a friendly mood that night.
 - Everyone in my friend's family was in a friendly mood that night.

4. YOU GO ON A VACATION WITH A GROUP OF PEOPLE AND YOU HAVE FUN,
 - I was in a good mood.
 - The people I was with were in good moods.

5. ALL OF YOUR FRIENDS CATCH A COLD EXCEPT YOU,
 - I have been healthy lately.
 - I am a healthy person.

6. YOUR PET GETS RUN OVER BY A CAR,
 - I don't take good care of my pets.
 - Drivers are not cautious enough.

7. SOME KIDS THAT YOU KNOW SAY THAT THEY DO NOT LIKE YOU,
- Once in a while people are mean to me.
 - Once in a while I am mean to other people.
8. YOU GET VERY GOOD GRADES,
- School work is simple.
 - I am a hard worker.
9. YOU MEET A FRIEND AND YOUR FRIEND TELLS YOU THAT YOU LOOK NICE,
- My friend felt like praising the way people looked that day.
 - Usually my friend praises the way people look.
10. A GOOD FRIEND SAYS "I HATE YOU",
- My friend was in a bad mood that day.
 - I wasn't nice to my friend that day.
11. YOU TELL A JOKE AND NO ONE LAUGHS,
- I do not tell jokes well.
 - The joke is so well known that it is no longer funny.
12. YOUR TEACHER GIVES A LESSON AND YOU DO NOT UNDERSTAND IT,
- I didn't pay attention to anything that day.
 - I didn't pay attention when my teacher was talking.
13. YOU FAIL A TEST,
- My teacher makes hard tests.
 - The past few weeks my teacher has made hard tests.

14. YOU GAIN A LOT OF WEIGHT AND START TO LOOK FAT,
- The food that I have to eat is fattening.
 - I like fattening foods.
15. A PERSON STEALS MONEY FROM YOU,
- That person is dishonest.
 - People are dishonest.
16. YOUR PARENTS PRAISE SOMETHING THAT YOU MAKE,
- I am good at making some things.
 - My parents like some things I make.
17. YOU PLAY A GAME AND YOU WIN MONEY,
- I am a lucky person.
 - I am lucky when I play games.
18. YOU ALMOST DROWN WHEN SWIMMING IN A RIVER.
- I am not a very cautious person.
 - Some days I am not a cautious person.
19. YOU ARE INVITED TO A LOT OF PARTIES,
- A lot of people have been acting friendly toward me lately.
 - I have been acting friendly toward a lot of people lately.
20. A GROWNUP YELLS AT YOU,
- That person yelled at the first person he saw.
 - That person yelled at a lot of people he saw that day.

21. YOU DO A PROJECT WITH A GROUP OF KIDS AND IT TURNS OUT BADLY,
- I didn't work well with the people in the group.
 - I never work well with a group.
22. YOU MAKE A NEW FRIEND,
- I am a nice person.
 - The people that I meet are nice.
23. YOU HAVE BEEN GETTING ALONG WELL WITH YOUR FAMILY,
- I am easy to get along with when I am with my family.
 - Once in a while I am easy to get along with when I am with my family.
24. YOU TRY TO SELL CANDY, BUT NO ONE WILL BUY ANY,
- Lately a lot of children are selling things, so people don't want to buy anything else from children.
 - People don't like to buy things from children.
25. YOU PLAY A GAME AND YOU WIN,
- Sometimes I try as hard as I can at games.
 - Sometimes I try as hard as I can.
26. YOU GET A BAD GRADE IN SCHOOL,
- I am stupid.
 - Teachers are unfair graders.
27. YOU WALK INTO A DOOR AND YOU GET A BLOODY NOSE,
- I wasn't looking where I was going.
 - I have been careless lately.

28. YOU MISS THE BALL AND YOUR TEAM LOSES THE GAME,

- I didn't try hard while playing ball that day.
- I usually do not try hard when I am playing ball.

29. YOU TWIST YOUR ANKLE IN GYM CLASS,

- The past few weeks the sports we played in gym class have been dangerous.
- The past few weeks I have been clumsy in gym class.

30. YOUR PARENTS TAKE YOU TO THE BEACH AND YOU HAVE A GOOD TIME,

- Everything at the beach was nice that day.
- The weather at the beach was nice that day.

31. YOU TAKE A TRAIN WHICH ARRIVES SO LATE THAT YOU MISS A MOVIE,

- The past few days there have been problems with the train being on time.
- The trains are almost never on time.

32. YOUR MOTHER MAKES YOUR FAVOURITE DINNER,

- There are a few things that my mother will do to please me.
- My mother likes to please me.

33. A TEAM THAT YOU ARE ON LOSES A GAME,

- The team members don't play well together.
- That day the team members didn't play well together.

34. YOU FINISH YOUR HOMEWORK QUICKLY,

- Lately I have been doing everything quickly.
- Lately I have been doing school work quickly.

35. YOUR TEACHER ASKS YOU A QUESTION AND YOU GIVE THE WRONG ANSWER,
- I get nervous when I have to answer questions.
 - That day I got nervous when I had to answer questions.
36. YOU GET ON THE WRONG BUS AND GET LOST,
- That day I wasn't paying attention to what was going on.
 - I usually don't pay attention to what's going on.
37. YOU GO TO AN AMUSEMENT PARK AND YOU HAVE A GOOD TIME,
- I usually enjoy myself at amusement parks.
 - I usually enjoy myself.
38. AN OLDER KID SLAPS YOU IN THE FACE,
- I teased his younger brother.
 - His younger brother told him I had teased him.
39. YOU GET ALL THE TOYS YOU WANT ON YOUR BIRTHDAY,
- People always guess what toys to buy me for my birthday.
 - This birthday people guessed right as to what toys I wanted.
40. YOU TAKE A VACATION IN THE COUNTRY AND YOU HAVE A WONDERFUL TIME,
- The country is a beautiful place to be.
 - The time of the year that we went was beautiful.
41. YOUR NEIGHBOURS ASK YOU OVER FOR DINNER,
- Sometimes people are in kind moods.
 - People are kind.
42. YOU HAVE A SUBSTITUTE TEACHER AND SHE LIKES YOU,
- I was well behaved during class that day.
 - I am almost always well behaved during class.

43. YOU MAKE YOUR FRIENDS HAPPY,
- I am a fun person to be with.
 - Sometimes I am a fun person to be with.
44. YOU GET A FREE ICE CREAM CONE,
- I was friendly to the ice cream man that day.
 - The ice cream man was feeling friendly that day.
45. AT YOUR FRIEND'S PARTY THE MAGICIAN ASKS YOU TO HELP OUT,
- It was just luck that I got picked.
 - I looked really interested in what was going on.
46. YOU TRY TO CONVINCING A KID TO GO TO THE MOVIES WITH YOU, BUT THIS PERSON WON'T GO,
- That day that person did not feel like doing anything.
 - That day that person did not feel like going to the movies.
47. YOUR PARENTS GET A DIVORCE,
- It is hard for people to get along well when they are married.
 - It is hard for my parents to get along well when they are married.
48. YOU HAVE BEEN TRYING TO GET INTO A CLUB AND YOU DON'T GET IN,
- I don't get along well with other people.
 - I can't get along well with the people in the club.

APPENDIX F

LIFE EVENTS QUESTIONNAIRE

Coddington (1984)

THIS QUESTIONNAIRE LISTS 36 EVENTS THAT SOMETIMES HAPPEN TO CHILDREN OF YOUR AGE. **READ EACH STATEMENT AND PUT AN "X" IN THE BOX BESIDE IT IF THIS HAS HAPPENED TO YOU IN THE PAST YEAR.**

IF YOU READ A STATEMENT AND IT HAS NOT HAPPENED TO YOU IN THE PAST YEAR THEN JUST MOVE ON TO THE NEXT STATEMENT.

- Birth or adoption of brother or sister.
- The death of parent.
- Mother beginning to work outside the home.
- Finding an adult who really respects you.
- Serious illness requiring hospitalization of brother or sister.
- Major decrease in your parents' income.
- Marriage of parent to stepparent.
- A new adult moving into your home (i.e. grandparent, etc.).
- Divorce of your parents.
- Serious illness requiring hospitalization of yourself.
- Marital separation of parents.
- Start of a new problem between your parents.
- Change in father's job so he has less time at home.
- Suspension from school.
- Start of a new problem between you and your parents.
- Serious illness requiring hospitalization of a parent.
- Being told you are very attractive by a friend.
- Recognition for excelling in a sport or other activity.
- End of a problem between your parents.

- Appearance in a court for young offenders.
- Move to a different school.
- Death of a close friend.
- End of a problem between you and your parents.
- Becoming involved with drugs or alcohol.
- Beginning the first grade.
- Becoming a full member of your church/synagogue/temple.
- Death of a brother or sister.
- Major increase in your parents' income.
- Death of a grandparent.
- Failing to achieve something you really wanted.
- Being invited to join a social organization.
- Outstanding personal achievement (special prize).
- Death of a pet.
- Loss of a job by your mother or father.
- Stopping the use of drugs.
- Failing a grade in school.

APPENDIX G

INFORMED CONSENT FOR TEACHER PARTICIPATION IN RESEARCH STUDY

I understand that I am being asked to participate in a study entitled "Negative Affect, Explanatory Style and Stressful Life Events in an Elementary School Population" which is being conducted by David Johnston (a Doctoral candidate at the Faculty of Social Work, Wilfrid Laurier University) under the supervision of Dr. Robert Basso (Associate Professor, Faculty of Social Work, Wilfrid Laurier University).

The purpose of this study is to better understand the relationships that might exist between the feelings, the internal explanations that students have for events that happen in their lives and the stresses of students in grades 4 to 6. This would enable us to identify those students or groups of students who might need assistance. It could also help us identify those factors that contribute to the development of positive and negative feelings in children of this age.

I understand that I will be asked to complete a brief questionnaire on each student in my class and that this will take a maximum of 15 minutes.

I understand that my participation is voluntary. I may refuse to participate or withdraw participation in this study if I so desire.

I understand that all research records will be kept confidential, that no information will be made public and that all records will be held solely by the investigator and will be destroyed as soon as the study is complete.

I understand that I am free to contact the investigator and to have any questions that I have answered. I am also able to contact the investigator in order to get feedback on the overall results.

Research Investigator -- David Johnston, (416) 396-7951
Thesis Supervisor -- Dr. Robert Basso, Faculty of Social Work,
Wilfrid Laurier University 1-519-884-1970

I acknowledge receiving and reading a copy of the informed consent for the study entitled "Negative Affect, Explanatory Style and Stressful Life Events in an Elementary School Population."
I agree to participate in this research study.

Signature

Please print name here

THANKYOU VERY MUCH FOR YOUR COOPERATION!!

APPENDIX H

TEACHERS RATING SCALE

IN THIS STUDY WE ARE INTERESTED IN UNDERSTANDING THE FEELINGS THAT CHILDREN EXPERIENCE. OF SPECIFIC INTEREST ARE THE NEGATIVE EMOTIONS THAT CHILDREN THIS AGE MIGHT FEEL.

A WORKING DEFINITION OF CHILDHOOD DEPRESSION, TAKEN FROM A REVIEW OF THE LITERATURE, DESCRIBES IT AS A STATE MARKED BY A REDUCTION IN ENTHUSIASM AND IN THE CAPACITY FOR PLEASURABLE EXPERIENCE. FOUR AREAS OF FUNCTIONING MAY BE AFFECTED:

- A) affective -- feelings of anxiety and worry
- B) cognitive -- putting yourself down, negative self comments
- C) motivational -- decreased performance, withdrawal from people, events and situations
- D) vegetative -- fatigue, sleep problems and loss of appetite.

GIVEN THIS DEFINITION, PLEASE RATE THE LEVEL OF NEGATIVE AFFECT ON THE FOLLOWING CHILDREN IN YOUR CLASS. **SIMPLY PLACE A NUMBER FROM 1 - 5 NEXT TO THE STUDENT'S NAME.**

1	2	3	4	5
not at all depressed				extremely depressed

(A SCORE OF 1 WOULD INDICATE THAT YOU SEE THE STUDENT HAVING NO SYMPTOMS IN THE AREAS DESCRIBED ABOVE, WHILE A SCORE OF 5 WOULD MEAN THAT THIS STUDENT HAS SYMPTOMS IN ALL 4 OF THE AREAS LISTED ABOVE)

(this is an example only, the following names are fictitious)

STUDENT	RATING
John Abel	_____
Mary Chow	_____
Baydn Deonarain	_____
Roger Ellendale	_____
Melissa Gopal	_____
Terence Hainsworth	_____
Mohamed Hamid	_____
Gandy Rankine	_____
Lai Ping Siu	_____
Michael Thomas	_____
Ruth Zaretsky	_____

APPENDIX I

CLASSROOM INSTRUCTIONS

GOOD MORNING/AFTERNOON.

Today I am going to ask you to fill out several questionnaires. They ask questions about how you are feeling, what you would do in certain situations, and what things have happened to you in the past year.

I have asked your parents for permission to do this and they have agreed. You also have the choice of answering the questions or not. If you choose not to answer the questions you can check the box on the front of the sheet. You can also choose not to complete any specific question if you desire.

I also want you to know that whether you complete this or not it will not have any effect on your grades or on any other activities at school. It will not be put in your student file and no teacher will see any information on your sheet. In some cases your parents will be contacted if you indicate by your answers that you are feeling very upset.

I will be available to answer any questions that you have and other people (like the guidance counsellor) are in the guidance office if you are upset by any of the questions and you feel the need to talk to someone.

It will take about a half an hour to answer all the questions.