

MORAL MATURITY AND SELF-ESTEEM AS
PREDICTORS OF PROBLEM BEHAVIOUR IN CHILDREN

ES

by

Theresa Anne Van Domselaar
B.A., University of Victoria, 1989

A Thesis Submitted in Partial Fulfilment of the
Requirements for the Degree of

MASTER OF ARTS

in the Department of Psychological
Foundations in Education

We accept this thesis as conforming
to the required standard

Dr. B. Timmons, Supervisor (Department of
Psychological Foundations in Education)

Dr. B. Harvey, Departmental Member (Department
of Psychological Foundations in Education)

Dr. M. Runtz, Outside Member (Department of Psychology)

Dr. T. Riecken, External Examiner
(Department of Social and Natural Sciences)

© THERESA VAN DOMSELAAR, 1993

University of Victoria

All rights reserved. Thesis may not be reproduced in whole
or in part, by photocopy or other means, without the
permission of the author.

Supervisor: Dr. Beverly Timmons

ABSTRACT

Moral maturity and self-esteem scores were assessed for their ability to predict reports of elementary school children's problem behaviour both at home and at school. Of the 79 participating children, 20 were assigned to the "high" problem behaviour group and 20 to the "low" problem behaviour group. Classification analysis was limited to these groups. Two hierarchical discriminant function analyses were carried out; one using teachers' ratings of children's behaviour, and the other using parents' ratings. In order to control for socioeconomic status (SES), this variable was entered into the model prior to both moral maturity (SRMS) and self-esteem (SEI) scores. Results indicated that SES alone does not predict group membership in this sample, regardless of the source of the behaviour ratings. However, when using teacher-generated behaviour ratings, the simultaneous inclusion of moral maturity scores, self-esteem scores and SES in the model results in significant prediction ($R = .448$, $p < .05$), allowing 70% of participants to be correctly classified. Self-esteem scores correlated at $.88$ ($p < .02$) with the discriminant function, indicating that most of the classificatory power of this model was due to this variable. When self-esteem, moral maturity and SES were included in the model which used parent-generated behaviour ratings, no significant prediction of group membership was found. Implications of these results for the prediction of children demonstrating problem behaviour are discussed.

Examiners:



Dr. B. Timmons, Supervisor (Department of Psychological Foundations in Education)



Dr. B. Harvey, Departmental Member (Department of Psychological Foundations in Education)



Dr. M. Runtz, Outside Member (Department of Psychology)



Dr. T. Riecken, External Examiner (Department of Social and Natural Sciences)

Table of Contents

TITLE PAGE i

ABSTRACT ii

TABLE OF CONTENTS iv

LIST OF TABLES vii

LIST OF FIGURES viii

ACKNOWLEDGMENTS ix

DEDICATION x

CHAPTER 1 INTRODUCTION 1

 The Importance of Prevention 1

 Purpose 2

 Present Study 3

CHAPTER 2 LITERATURE REVIEW 4

 Theoretical Considerations 4

 Lawrence Kohlberg 4

 Kohlberg's Stages 6

 Criticisms of Kohlberg's Theory 8

 Non-universality 8

 "Natural" or "Standard" Stages vs.
 "Existential" Stages 10

 Immature-Mature Dichotomy 11

 Gender Bias 12

 Carol Gilligan 13

 Criticisms of Gilligan's Theory 14

 Lack of Empirical Evidence 14

 Weak Support of Gender Differences 15

 Implications 18

 Relationships Among Variables 19

 Problem Behaviour and Delinquency 19

| | |
|--|--------|
| Moral Development and Delinquency | 25 |
| Self-Esteem and Delinquency | 27 |
| Kaplan's Theory: A summary | 27 |
| Self-Esteem Literature: Some Flaws | 29 |
| Self-Esteem: Additional Research | 30 |
| Self-Esteem and Moral Maturity | 32 |
| Rationale for Further Study | 33 |
| CHAPTER 3 PROCEDURES | 35 |
| Hypotheses | 35 |
| Instrumentation | 36 |
| The Sociomoral Reflection Measure--Short Form | 37 |
| The Coopersmith Self-Esteem Inventory | 41 |
| The Matson Evaluation of Social Skills with Youngsters (MESSY) | 41 |
| Duncan Socioeconomic Index -- Revised | 43 |
| Method | 44 |
| Sample | 44 |
| Procedure | 46 |
| Scoring | 49 |
| CHAPTER 4 RESULTS | 53 |
| Hypothesis 1: Gender Differences | 53 |
| Hypothesis 2: Prediction of Problem Behaviour | 54 |
| Prediction of Group Membership Based on Teacher Behaviour Ratings | 59 |
| Prediction of Group Membership Based on Parent Behaviour Ratings | 62 |
| Hypothesis 3: Separate Predictive Utility of Self-Esteem and Moral Maturity | 65 |
| Directional Hypotheses 4, 5 and 6 | 66 |
| Summary of Results | 69 |
| CHAPTER 5 DISCUSSION AND LIMITATIONS | 71 |
| Discussion | 71 |
| Lack of Gender Differences | 71 |
| Distributions of Parent and Teacher MESSY Scores | 71 |
| Prediction of Problem Behaviour | 73 |
| Relationships Among Key Variables | 75 |
| Limitations | 76 |
| Sample-Based Limitations | 76 |

| | |
|---|-----------|
| Limitations of Measurement | 77 |
| CHAPTER 6 SUMMARY AND CONCLUSIONS | 80 |
| General Summary | 80 |
| Directions for Future Research | 82 |
| Conclusion | 83 |
| REFERENCES | 84 |
| APPENDICES | 93 |
| Appendix I: Request for Participation | 93 |
| Appendix II: Child Information Script (Order 1) | 95 |
| Appendix III: Child Information Script (Order 2) | 98 |
| Appendix IV: Matson Evaluation of Social Skills with Youngsters, and Rating Form | 100 |
| Appendix V: Sociomoral Reflection Measure - Short Form, and Rating Form | 106 |
| Appendix VI: Coopersmith Self-Esteem Inventory, with Scoring Key and Rating Form | 112 |
| Appendix VII: Duncan Socioeconomic Index - Revised | 118 |

List of Tables

| | |
|--|----|
| Table 1: Descriptive Statistics of Parent and Teacher Behaviour Ratings | 57 |
| Table 2: Results of Hierarchical Discriminant Function Analysis for Teacher Behaviour Ratings | 62 |
| Table 3: Selected Correlations Among Variables | 68 |

List of Figures

Figure 1: Roff & Wirt (1984); Partial Path Analysis of
Results for Males 22

Figure 2: Kaplan’s Delinquency-as-Esteem-Enhancement Model 28

Figure 3: Reliability of SRM-SF Practice Protocols 51

Figure 4: Histogram of Teacher MESSY Scores 57

Figure 5: Histogram of Parent MESSY Scores 58

ACKNOWLEDGEMENTS

Many people have lent support and encouragement to me during the course of this research project. My supervisor, Dr. Beverly Timmons was especially helpful, providing me with constructive feedback at all stages of the study, and encouraging my growth as a professional researcher. My committee members, Dr. Brian Harvey and Dr. Marsha Runtz, were also supportive, always willing to answer my questions. Thanks also to Dr. Walter Muir who helped me clear several statistical hurdles.

I also appreciate the enthusiastic cooperation of the teachers and principals who participated in the study. Without their considerable time commitment, this research would not have been possible. In addition, I would like to acknowledge the Sara Spencer Foundation, whose financial assistance greatly facilitated the completion of the study. Finally, I would like to express my deep appreciation to Laurel Townsend for her unlimited emotional support and friendship throughout the duration of this project.

DEDICATION

This thesis is dedicated to
my parents, Jim and Herma Van Domselaar,
and to the rest of my family, Jamie, Lori, Kim and
Dee-Anna, for their unwavering confidence
in my ability to reach this goal.

CHAPTER 1

Introduction

In this chapter, a case is made for the importance of developing a reliable and accurate instrument for identifying children who may be at risk for delinquency. Deficits in the body of literature regarding the prediction of delinquent behaviour are noted, and the general purpose of the study is spelled out. To conclude the chapter, a brief outline of the study is presented.

The Importance of Prevention

It is estimated that the recidivism rate in North American correctional facilities is 70 - 80% (Sechrest, White & Brown, 1979; Smith & Berlin, 1988). Additionally, it has been claimed that the correctional system does not provide adequate rehabilitative services (Sechrest, et al., 1979; Martin, Sechrest & Redner, 1981). The correctional system presently in place is both expensive to maintain and does little to return productive, well-functioning individuals to the community and to the workforce. Instead it merely "warehouses" offenders, in the company of other criminals.

Given the above, it is of paramount importance to both *identify* and *remediate* the problems of troubled youth, thereby preventing their entry into a system that presently does little to "correct" maladaptive behaviour. The first step in such a preventative measure is to adequately and reliably identify those children potentially at risk for the development of problem behaviour that may lead to delinquency. Unfortunately, most of the current research on the topic of

delinquency is postdictive in nature. That is, data are collected on the characteristics that exist in delinquent samples already immersed in the correctional system (for examples see Blasi, 1980; Chandler & Moran, 1990; Kaplan & Arbuthnot, 1985; Leung & Drasgow, 1986; McCarthy & Hoge, 1984; Rosenberg & Rosenberg, 1978). While this type of research provides valuable information on the correlates of delinquency, it does little to enhance our ability to predict which individuals are likely to display delinquent behaviour in the future. Only when those at risk for delinquent behaviour are accurately identified can appropriate remediation (i.e., education and training) be put into place to subsequently divert youth from the correctional system. The present study focuses on the identification component of such prevention.

Purpose

The primary purpose of this study is to initiate the development of an assessment device that will aid in the early identification of children at risk for delinquency. To this end, the relationship between reports of children's (predelinquent) problem behaviour and both their levels of self-esteem and moral maturity will be examined. More specifically, moral maturity and self-esteem scores will be assessed for their utility in predicting whether children's problem behaviour ratings will fall into either "high" or "low" problem behaviour categories. The effect of the covariate, socioeconomic status, will also be assessed for its separate utility in predicting group membership.

Self-esteem and moral maturity scores will be assessed for possible gender differences. A second goal of the study is to examine the direction of the relationships between the predictor variables (moral maturity and self-esteem) and the covariate (socioeconomic status).

Present Study

A sample of the literature pertinent to the present study is presented in Chapter 2, including a review of Kohlberg's and Gilligan's perspectives regarding the development of moral judgement. The chapter also outlines research on the interrelationships among the variables in the study. Chapter 3 describes the hypotheses to be tested in the study, and provides information on the measurement instruments and their utilization. In the fourth chapter the results of each analysis are described. These results are discussed in Chapter 5, along with some limitations of the study. A summary of the study is presented in Chapter 6. Possible directions for future research and some general conclusions are made in the final chapter as well.

CHAPTER 2

Literature Review

This chapter is composed of two major components, each containing several sub-sections. The first component is primarily theoretical in nature, outlining both Kohlberg's and Gilligan's theories and criticisms thereof. The implications of these theoretical considerations for the present study are also spelled out in this section.

The second component of the chapter outlines research pertaining to each of the variables and their inter-relationships. Literature regarding the relationship between moral development and delinquency is reviewed, as is that between self-esteem and delinquency. The connection between problem behaviour and delinquency is also examined. The relationship between moral development and self-esteem is then considered. To conclude the second component, the infrequently studied relationship between self-esteem and moral maturity is discussed.

Theoretical Considerations

Lawrence Kohlberg

Kohlberg's theory is a cognitive-developmental account of moral judgement (Colby, Kohlberg, Gibbs & Lieberman, 1983). In the account, moral judgement is said to develop through six stage sequences. Kohlberg's definitions of these stages follow Piaget's (1965) criteria.

First, the stages imply distinct, qualitative differences in modes of thought. That is, the same problem will be solved in different ways, at different ages. Also, the modes of thought form an invariant sequence in their development. Therefore, stages cannot be skipped, and movement through the stages is always in a forward direction. However, invariant progression does not occur because the stages are innate, but because each stage follows *logically* from the last. Furthermore, each mode of thought forms a distinct and structured whole. According to Colby, (1983) "a given stage response ... represents an underlying thought organization which determines responses to tasks which are not manifestly similar" (p. 1).

Another Piagetian criterion held by Kohlberg is that the stages are hierarchical. Each new stage integrates the understanding gained at each previous stage. The stages form an order of increasingly differentiated and integrated structures to fulfil a common function (Kohlberg, 1969).

Finally, the stages are assumed to be culturally universal. That is, the full range of stages, including postconventional Stages 5 and 6, must be evident across all types of cultures (Snarey, 1985). Gibbs (1977) stated this succinctly when he said, "the stages should be commonly in evidence among members of the species from birth to maturity" (p. 47).

Kohlberg's Stages

Kohlberg defined three major moral developmental levels: preconventional, conventional and postconventional. Each level consists of two substages. The six stages (Kohlberg, 1976) are briefly described below.

The preconventional level consists of Stages 1 and 2. Stage 1 is termed "heteronomous morality." This stage is characterized by the desire to avoid punishment. The child can not distinguish between his or her own interests and rights and those of others. "Right" is defined as obeying authority for its own sake.

The second stage is called "individualism, instrumental purpose and exchange." Rules are now followed only when it is in the child's own interest to do so. The right of others to satisfy their interests is also recognized. "Right" is defined as serving one's own needs.

Stage 3, the first stage at the conventional level of moral reasoning is called "mutual interpersonal expectations." The essence of this stage is the belief in the Golden Rule. Agreements and promises are very important, as is showing concern and care for others. The child is now able to take another's perspective. "Right" is seen as living up to significant others' expectations and adhering to agreements.

Stage 4, "social system and conscience," is characterized by the belief that the social order must be maintained. The individual is seen as part of the social system, and is responsible for the welfare of society as a whole. "Right" is contributing to the society, group or institution to which one belongs.

The first stage of the postconventional level, Stage 5, is termed "utility and individual rights." In this stage the individual upholds social laws because they are perceived as the basis for protection of individual rights. Laws are based on a rational calculation of overall utility. "Right" is to provide "the greatest good for the greatest number" (Colby, et al., 1983).

Stage 6 represents the final and ideal state of moral maturity. It is labelled "universal ethical principles." "Right" is based on abstract and logical ethical principles. These principles are self-chosen, not specifically prescribed by society. These rights include the equality of all people and the right to life and liberty. Any laws imposed by society must rest on these principles or they are not valid. Laws are evaluated for their ethical foundation and are followed (or not followed) on the basis of this evaluation.

Kohlberg (1976) maintained that these stages are invariant, but that the rate of moral development and the final stage attained will vary according to two determinants. First, appropriate levels of both cognitive development and perspective-taking ability must be achieved (see Walker, 1980). Second, the individual must have sufficient and varied sociomoral experiences. That is, the person must have had experience making moral decisions in real conflict situations. In addition, the person's environment must include opportunities for leadership, communication, decision-making and responsibility. Moral development will be enhanced to the degree that the above sociomoral facilitators are present in the learning environment and utilised therein.

Criticisms of Kohlberg's Theory

Having reviewed Kohlberg's theoretical orientation and stage structure, some critical remarks can now be made. Kohlberg's theory has been criticized on several accounts. Three criticisms with important theoretical implications for Kohlberg's typology are discussed below.

Non-Universality.

The first of these criticisms focuses on the non-universality of the six stages (Basinger, Gibbs, & Fuller, 1991; Kurtines & Grief, 1974; Snarey, 1985). Snarey (1985) reviewed 45 moral development studies (38 cross-sectional and 7 longitudinal) carried out in 27 countries. He found that Stages 1 through 4 were virtually universal. However, the presence of Stages 5 or 6 was extremely rare in all populations. Snarey postulated that this rarity may be due to the culturally relative definitions used to assess these latter stages. Kohlberg's "descriptions of higher stage reasoning are primarily based on Kant, Rawls and other Western philosophers" (p. 228). Snarey concluded by suggesting that Kohlberg's stage model should be expanded to include examples of higher stage reasoning from a wider range of cultural world views.

Distinct from Snarey's criticism that higher stage reasoning is culturally relative is the assertion by Basinger, et al. (1991) and Gibbs, Basinger and Fuller, (1992) that Kohlberg's trichotomy does not accurately represent natural or spontaneous moral judgement. These authors pointed out that while Kohlberg

dropped Stage 6 as a valid empirical entity in 1981, he retained the pre-conventional-conventional-postconventional trichotomy. The decision to drop Stage 6 was based on two surprising findings of Kohlberg's earlier longitudinal research. First, students who scored at Stage 5 or 6 in high school later scored at Stage 2 when tested in early adulthood. While at first Kohlberg accepted this apparent "stage regression" at face value, he eventually concluded that these anomalies were instead a result of vague and inaccurate stage definitions. He and his colleagues subsequently re-defined the stages more stringently in order to restore (Piagetian) sequentiality.

Second, using these more stringently defined stages, Stage 6 emerged only rarely among elite samples of those with high levels of formal philosophical training, and *not at all* in the original longitudinal sample. However, as outlined earlier, Piagetian theory holds that stage structures should be unconfounded with cultural ideology or philosophy, and that stages should be commonly in evidence throughout humanity (Basinger, et al., 1991). Both the rarity of Stage 6 and its association with elite or formal philosophical training induced Kohlberg to drop Stage 6 from his system.

Gibbs and his colleagues (1992) stated that Kohlberg did not go far enough. They have postulated that Stage 5 should also be discarded from Kohlberg's typology for the same reasons that Stage 6 was discarded. Like Stage 6, Stage 5 is only rarely observed in general populations, and emerges only among those trained in formal philosophy. As such, Stage 5 also violates the Piagetian principle that stages be "commonly" and "naturally" produced throughout all populations.

"Natural" or "Standard" Stages vs. "Existential" Stages.

Gibbs (1977, 1979) maintained that the previously discussed empirical rarity of Stages 5 and 6 is symptomatic of a more fundamental shortcoming in Kohlberg's theory. Gibbs argued that "post-conventional" reasoning is *qualitatively* different from the reasoning utilized in Stages 1 through 4. This difference stems from what Gibbs (1977) calls the most fundamental feature of Piaget's theory: naturalism.

In the context of Piaget's theory, naturalism emphasized a continuity between the human species and other forms of life....This biological basis for the gradual character of development makes the stage criterion of consecutive sequence substantive and not tautological (Gibbs, 1977, p. 53).

The naturalistic orientation in Piagetian theory leads to an emphasis on the "implicit or unreflective character" (Gibbs, 1977, p. 53) of stages. That is, the mechanisms of each stage of natural development, and the behaviour which they direct, are not consciously known by the actor. According to Piaget (1973), "the intimate functioning remains entirely unknown to the subject ... [except] at very superior levels" (p. 33). Therefore, since post-conventional reasoning involves a conscious awareness of one's cognitive processes, much second-order thinking and a detached, "meta" perspective (Gibbs, 1979), this type of moral reasoning fails to meet Piaget's definition of a naturalistic stage. "Although Piaget (1973) has been willing to speculate that reflective philosophies may signify 'realizations' (p. 28) extending from natural stage origins,...he does not consider those philosophies themselves to be natural stages" (Gibbs, 1979, p. 95).

Stages 5 and 6 then, can be seen as extensions of the first four natural stages, but should not be considered philosophically equivalent to them. Instead, these latter two stages can be considered "existential stages," representing the kind of moral reasoning that, as Piaget noted, occurs only "at very superior levels" (Piaget, 1973, p. 33). Gibbs (1979) summarized this idea as follows:

The existential sense of human development is so fundamentally distinct from the standard [natural] sense that it is gratuitous and probably mistaken to assume, as Kohlberg has done, that the idea of stage in the standard developmental sense can be extended to the existential realm of development (p. 103).

In summary, Kohlberg's theory has been criticized on both empirical and theoretical grounds. These criticisms impact directly on the methods used in the measurement of moral development. Based on his Piagetian revision of Kohlberg's theory, Gibbs and his colleagues (Gibbs, Basinger & Fuller, 1992) have recently developed a new measure of moral maturity. Its content and rationale are briefly described below.

Immature-Mature Dichotomy.

Gibbs, et al. (1992) have proposed that Kohlberg's trichotomy be replaced with an immature-mature dichotomy. Only the first four "naturalistic" stages have been retained. In this typology, immature stages are seen as confusing morality with unilateral, physical power (Stage 1) or pragmatic ideals (Stage 2) (Gibbs, et al.,

1992). Correspondingly, mature stages "penetrate through superficial or extrinsic considerations to infer the bases of interpersonal relationships (Stage 3) or society (Stage 4)" (Basinger et al., 1991, p. 9).

While Kohlberg's initial changes were sufficient to account for the anomalies found in his original longitudinal research, they resulted in certain departures from Piagetian theory, to which Kohlberg had always previously subscribed. "In his effort to restore conformity to one Piagetian tenet--standard, consecutive sequence for his moral judgment stages--Kohlberg departed from another tenet, specifically, that spontaneous and common reasoning should constitute the referent for stages" (Basinger, et al., 1991, p. 10). Consequently, the rarity of both stages 5 and 6 suggests the empirical need to abandon the pre-conventional-conventional-postconventional trichotomy, and replace it with the more ecologically valid immature-mature dichotomy as outlined above. This dichotomy is adopted for the present study in the form of the Sociomoral Reflection Measure--Short Form, (Gibbs, et al., 1992), and is later described in detail.

Gender Bias.

Yet another heated debate surrounding Kohlberg's theory concerns differences between male and female moral development. Kohlberg used 51 males in his original longitudinal sample. Colby, et al. (1983) pointed out that including both genders in this study would have necessitated doubling the sample size. "Given the laboriousness of the interviewing and scoring procedures, such a large sample was

not feasible. In retrospect, however, the omission of girls is regrettable" (Colby et al., 1983, note 4, p. 14). The exclusivity of the sample led to criticisms of inherent gender bias in the stage sequences that were subsequently derived from the sample.

Carol Gilligan

Carol Gilligan's (1977, 1988) response to the gender bias that she saw as inherent in Kohlberg's theory was to create an alternative stage sequence describing female moral development. Her sample consisted of 29 adult women who were considering having an abortion. Based on detailed interviews with each woman, Gilligan derived five stages of female moral development. The five stages are comprised of three main levels and two transitional levels. These levels and their transitions are briefly described below.

Level 1 is entitled "Orientation to Self Interest and Survival." In this stage the person's own needs take precedence over those of others. The self is the sole concern and individual survival is of paramount importance. The first transition is termed "Selfishness to Responsibility." The person becomes aware of the self as connected to others. Attachments to others are recognized and concern for their well-being emerges. The individual becomes aware of the difference between what she wants and what she ought to do.

"Goodness as Responsibility to Others" is the label applied to Gilligan's Level 2. The sense of concern for others emergent in the first transition becomes an overriding sense of responsibility for others at Level 2. Self-sacrifice becomes

important as does adherence to societal values. Acceptance into society is seen as stemming from caring for others. The second transition stage is titled "From Goodness to Truth." The person begins to consider her own needs as well as those of others. This self-care is no longer considered selfish, but part of one's responsibility. Other characteristics of this transition include an acknowledgement of the self and the responsibility to make fair and honest decisions.

Level 3, "The Morality of Non-Violence," is the pinnacle of moral development in Gilligan's typology. At this level, the self is recognized as equal to others. A commitment to non-violence is present and it is seen as one's duty to minimize pain (physical and emotional) for all concerned. Care is seen as the universal obligation of humankind.

Gilligan claims that this sequence of stages is a more valid conceptualization of female moral development than Kohlberg's stages. However, several criticisms have been made regarding Gilligan's approach.

Criticisms of Gilligan's Theory

Lack of Empirical Evidence.

According to Muuss (1988), one of the most serious criticisms undermining Gilligan's theory is the lack of empirical evidence supporting the invariant and sequential nature of the stages. No experimental, cross-sectional or longitudinal data have been provided to this end (Walker, 1984). Gilligan (1977, 1988) has provided only anecdotal evidence to support her model.

Weak Support of Gender Differences.

A second problem is that the empirical basis for gender differences in moral judgement is weak. Several recent studies have indicated that gender differences in moral maturity are relatively rare. When such differences do emerge, they are slight and often favour females.

Walker's (1984) review of Kohlbergian research is one of the most extensive recently undertaken. His review includes 79 studies, 31 (41 samples) referring to childhood and adolescence, 35 (46 samples) regarding late adolescence and 13 (21 samples) referring to adulthood. Only studies using Kohlberg's Moral Judgement Interview (MJI), and those including sufficient data on gender differences were included in Walker's review.

Concerning the first group of studies, only five of the 41 samples revealed any evidence of gender differences. In all five cases, girls' stage scores were slightly higher than those of boys. The second group (late adolescents), yielded gender differences for five of the 46 samples. Of these five samples, one revealed higher scores for females, while males scored higher in the other four samples. In all cases, groups were less than half a stage apart. For the 21 adult samples considered by Walker, four significant differences were found, all favouring men. Interestingly, notes Walker, all four of these samples were comprised of highly educated, professional males and less educated, non-professional females. In studies where males and females were matched for educational attainment, no such differences were found. This finding is consistent with Kohlberg's above noted statement that the rate and

terminal stage of moral development is determined by one's access to sufficient and varied sociomoral experiences, of which education is one.

To summarize, Walker found gender differences in only 14 of 104 independent samples. Of these, eight favoured higher moral development in males. Differences in all cases were less than half a stage. In the cases where men scored higher than women, the result was often confounded with educational level. Given these results, Walker concluded that "the moral reasoning of males and females is more similar than different" (p. 687).

A study done by Gibbs, Arnold and Burkhart (1984) encapsulated, and somewhat reconciled, the literature both for and against the presence of gender differences in moral reasoning. The authors studied 66 males and 111 females ranging from 11 to 21 years of age. Subjects were from predominantly middle-class families. The Sociomoral Reflection Measure (Gibbs & Widaman, 1982), a paper-and-pencil equivalent to Kohlberg's MJI was used to measure moral reasoning level. In general, Gibbs et al. (1984) found that males and females did not differ by moral judgement stage level. In fact, the mean Sociomoral Reflection scores were virtually identical (284.9 for males, 283.9 for females, $p > .05$.) Both males and females tended to exhibit Stage 3 reasoning in this sample.

In addition to stage information, the Sociomoral Reflection Measure also provided data on the style of moral reasoning. Significant gender differences were obtained in terms of moral reasoning style. Females were more likely than males to use an empathic role-taking style in their moral justifications, and also appealed to

standards of interpersonal approval/disapproval to evaluate their moral decisions. In general, these authors conclude that "since sex differences in moral judgement primarily entail content orientation (style) rather than stage level, ascriptions of greater adequacy or maturity to the moral thought of one or the other sex are inappropriate" (p. 1043).

This study by Gibbs, et al. (1984) demonstrates the principle difference between the two bodies of literature on gender differences in moral reasoning. In terms of stages, men and women tend to score similarly. However, in terms of content, males and females tend to prefer different styles of moral reasoning.

Recent cross-sectional research by Basinger, et al. (1991) found that while gender differences were apparent in their sample of Grade 6 and Grade 8 students, these differences favoured females. However, in the remainder of their sample (Grade 4, high school, university and adult subjects), no gender differences were found. Basinger and her colleagues posited that girls' higher moral maturity scores in early adolescence may be due to their greater social activity. According to these authors, when compared to boys, girls take part in "more extensive discussions and other social experiences during spontaneous play in dyads or small groups" (Basinger, et al., 1991, p. 33).

Muuss (1988) summed up the above research succinctly, stating: "the empirical research does not identify neat, consistent, unequivocal sex differences as Gilligan's theory implies" (p. 242). Although Baumrind (1984) vehemently argued

with this conclusion, the preponderance of the evidence rests on the side of no significant gender differences in the structure of moral reasoning ability.

Gilligan's construction of an alternative stage sequence of moral reasoning was in response to Kohlberg's failure to include females in his original sample. However, it seems that Gilligan's construction sample is just as narrowly based. Not only are males excluded from the sample, only adult females in a specific situation (e.g., those considering an abortion) are included in it. If Kohlberg's stages are inadequate to describe females, then by the same logic, Gilligan's typology excludes males, children, and those not considering an abortion. Although research has subsequently included a wider range of subjects, it seems equally regrettable that Gilligan's original sample was not more broadly based. Perhaps a comprehensive morality, one that transcends gender (Brell, 1989), would have been the result.

Notwithstanding the above, Gilligan's contributions to the field of moral development can not be ignored. Her criticisms served as a catalyst for furthering research in the area of moral development and encouraging revisions in Kohlbergian theory. However, to date Gilligan has failed to provide a theoretically or empirically sound alternative with which to conceptualize the development of moral judgement.

Implications

The above critical review of Kohlberg's and Gilligan's theories has two implications for the present study. First, given the lack of evidence for measured gender differences in moral reasoning, Kohlberg's typology will be retained as the

primary theoretical basis for analysis. Second, given the lack of an alternative standardized measurement instrument, the Sociomoral Reflection Measure – Short Form (Gibbs, et al., 1992), based on Kohlberg's Moral Judgement Interview, will be used in this study.

Relationships Among Variables

Problem Behaviour and Delinquency

The connection between problem behaviour in childhood and violent behaviour in adolescence and adulthood is becoming well-established. According to Lore and Schultz (1993),

longitudinal research indicates that children who display serious antisocial behaviours early in life are at a much greater risk to become violent adults with a broad spectrum of psychological problems including alcoholism, criminality, and poor adjustment to school, marriage, and work (p. 23).

Several studies have provided support for the above quotation, and a subsample of these is discussed below.

In a longitudinal study spanning 43 years (the Berkeley Guidance Study, 1928 - 1971), Caspi, Elder and Bem (1987) examined the relationship between childhood aggression and adult life patterns. Their sample consisted of 87 males and 95 females. Most of the subjects were from white, Protestant, middle class families. During middle childhood, subjects were assessed for their level of aggression. This was accomplished by rating the frequency, duration and intensity of each subject's

temper tantrums. "Severe tantrums involved 'biting, kicking, scratching, and throwing things' as well as verbal explosions such as 'swearing, screaming, and shouting' accompanied by marked emotional reactions" (Caspi, et al., 1987). Of their sample, 38% of males and 29% of females were classified as having a history of severe temper tantrums.

Subjects were again interviewed at approximately 30 years of age, and again when they were about 40 years old. Detailed information regarding the subjects' educational, employment, marital and parental histories was also obtained. Interviews with the subjects' spouses and children were also conducted where possible.

Several interesting results emerged from the study. Men who had a history of childhood aggression tended to be more undercontrolled, more unreliable, less ambitious, and less productive than men who did not display aggression in childhood. This lack of interpersonal skills then tended to result in an erratic work life, which led to the "progressive deterioration of socioeconomic status for ill-tempered boys from the middle class" (Caspi, et al., 1987). The authors later stated that this relationship holds for working class males as well.

Compared to their non-aggressive counterparts, females with a history of aggression were also shown to experience a decline in their socioeconomic status. Such females were also more likely to be divorced than their even-tempered peers. Furthermore, in those cases where divorce had not taken place, husbands of women

with aggressive histories reported more marital conflict and dissatisfaction than did the spouses of non-aggressive females.

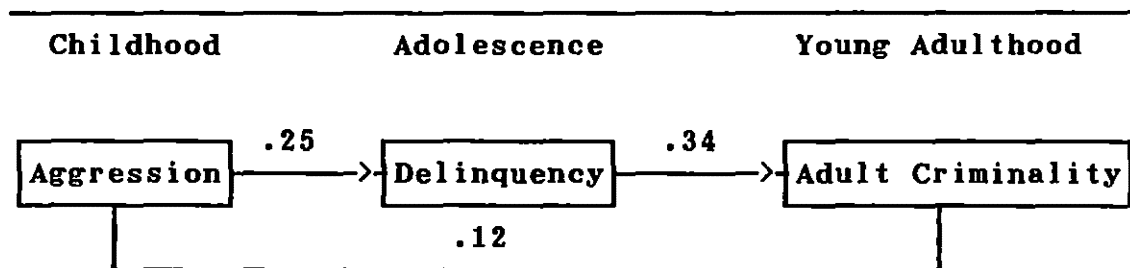
The authors concluded that "children with a stable pattern of temper tantrums in late childhood experience difficulties across many life tasks" (Caspi, et al., 1987). As such, the study provides support for the general hypothesis that children displaying antisocial behaviour are at a greater risk for developing psychological and interpersonal problems in adulthood. Studies also have been specifically conducted on early antisocial behaviour and criminal behaviour later in life. Two of these studies are discussed below.

A longitudinal study conducted by Roff and Wirt (1984) provided support for the hypothesis that childhood aggression is an antecedent of delinquency, especially in the context of peer rejection. They followed a sample of 2453 grade school children into young adulthood through the use of various records (ie., school, court, social services, etc.) During the early 1960's information was collected on the children's peer status (through a peer-nomination procedure), problem behaviour associated with peer rejection, and socioeconomic status.

Insert Figure 1 about here

Results indicated that, for males, "the combination of low peer status and lowest social class produces the highest rate of delinquency" (Roff & Wirt, 1984, p. 116). In fact, 46.3% of the males in this category became delinquent, nine times the rate of males in the highest social class with middle or high peer status ratings. For

FIGURE 1 ROFF & WIRT (1984): PARTIAL PATH ANALYSIS OF RESULTS FOR MALES



$p < .01$ for all correlations

these low peer status males, aggressive problem behaviour in grade school was significantly correlated with later delinquency. Delinquency was also related to later adult criminality. Childhood aggression is associated with adult criminality as well. This pattern of results is depicted in Figure 1.

Among delinquent males in this sample, 32.4% had adult criminal records compared to only 3.2% of non-delinquent males. For this sample of females, the correlation between childhood aggression and adolescent delinquency was not significant. Data were not collected on adult criminality for females.

The authors concluded that, for males, childhood aggression, especially in the context of peer rejection, can be considered an antecedent of delinquency. Further, the presence of aggressive behaviour in childhood is specifically related to later delinquency. That is, it is not related to other "negative" outcomes in adolescence and young adulthood, such as receiving welfare or requiring public mental health services. For females, no clear cut pattern of significant results was obtained. However, the authors stated that the lack of such results may be the product of the much lower base delinquency rate of females, and indicated that further research with larger samples of females displaying childhood aggression is necessary. Overall, the study provided support for the hypothesis that early aggressive problem behaviour tends to result in later delinquency.

A study conducted by Huesmann, Eron, Lefkowitz and Walder (1984) yielded results similar to the one above. In a study spanning 22 years, data were collected on the aggressive behaviour of 409 people (198 males, 211 females).

Aggressive behaviour was measured at age eight through the use of a peer nomination technique. Subjects were interviewed again at ages 18 and 30. Latter indications of aggression were derived from self-ratings (MMPI), spousal ratings, and citations of offenses by the New York State Divisions of Criminal Justice and Traffic. Once again, males demonstrated significantly higher aggression rates than females.

Peer-nominated aggression was significantly correlated with several negative outcomes in adulthood. For males, high levels of childhood aggression were predictive of both number and severity of criminal acts committed by age 30. Twenty-three percent of males who were highly aggressive at age eight had been convicted for a crime by age 30. Again, low base rates of both aggressive and criminal behaviour on the part of females precluded significant prediction in the female sample.

In general, the authors estimate the stability of aggression over 22 years to be about .50 for boys and .35 for girls. They concluded,

we have shown that the early aggressiveness displayed in school has a reasonable chance of turning into severe antisocial aggressiveness in a young adult. Such aggressiveness may manifest itself in criminal behaviour, physical aggression, and child abuse in both genders (Huesmann, et al., 1984, p. 1131).

As the previous studies show, evidence exists that early problem behaviour, especially aggression, is related to a number of negative outcomes in adolescence and adulthood. These negative outcomes include: a decline in adult socioeconomic

status, poor marriage and family histories, as well as delinquency and adult criminality. There is an established link between problem behaviour in childhood and subsequent adolescent and adult behaviour. Consequently, if children displaying problem behaviour can be identified in early childhood, it follows that appropriate intervention then could be provided for these children, who, in light of the above research, can be considered at-risk for future delinquent behaviour.

Moral Development and Delinquency

Several studies have demonstrated that delinquency is negatively correlated with level of moral maturity. The standard finding has been that youthful offenders consistently display less mature moral judgments than do their non-delinquent peers (see Arbuthnot & Gordon, 1988; Arbuthnot, 1984; Basinger, et al., 1991; Chandler & Moran, 1990; Hayes & Walker, 1986; Kaplan & Arbuthnot, 1985).

Blasi (1980), in his extensive review of Kohlbergian literature, discussed the outcomes of 15 studies conducted regarding the relationship between moral development and delinquency. Of these 15 studies, 11 used Kohlberg's MJI as the measure of moral development. The other four studies used either measures of their own construction, (based on Kohlberg's or Piaget's theory of moral development), or Rest's Defining Issues Test. All studies matched their delinquent and non-delinquent samples for age, race, social class and level of intelligence.

Regarding the results of these studies, Blasi commented, "of the 15 studies, ten show statistically significant differences between the two groups. These results

are particularly strong because frequently they were obtained with small samples" (Blasi, 1980, p. 12). Further, six of these studies found that 80% of their delinquent sample reasoned at preconventional Levels 1 and 2, although "it is clear that a range of moral reasoning can be present among delinquents" (Blasi, 1980, p. 12).

More recently, Chandler and Moran's (1990) study found that 89% of their subjects could be correctly classified as delinquent or non-delinquent on the basis of moral maturity scores. Specifically, these authors found that delinquent subjects "lagged behind their non-delinquent counterparts by approximately one half of a stage in moral reasoning" (p. 235). In the context of a six-stage theory, a difference of one half of a stage is both statistically and practically significant. This result held firm even after IQ was controlled statistically. Chandler and Moran's study represents the usual finding: delinquent youth are less morally mature than non-delinquent youth.

In addition to the sociomoral developmental delay described in the above studies, delinquent or conduct disordered youth also tend to display a number of other deficits in the social domain. For instance, delinquents tend to lack social conventional knowledge, are less empathic, and show fewer role-taking skills than their more law-abiding peers (Chandler & Moran, 1990). The present study seeks to determine if the above findings also apply to children who display problem behaviour, but are not yet adjudicated delinquents.

Self-Esteem and Delinquency

Kaplan's Theory: A Summary.

The relationship between self-esteem and delinquent behaviour is not as clearly documented as that between moral maturity and delinquency. Much of the controversy in the literature refers to the issue of causality: Does low self-esteem cause delinquent behaviour, or does engaging in delinquency produce low self-esteem? Kaplan's (1977, 1978) theory provides a dynamic, interactive account of the relationship between these two variables.

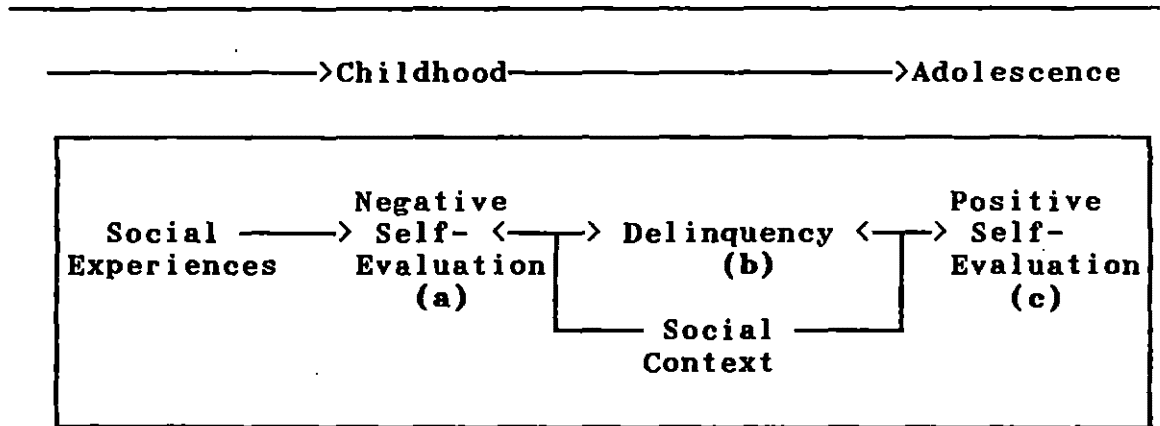
Kaplan (1977, 1978) has proposed the Delinquency-as-Esteem-Enhancement model. Its general theme is depicted in Figure 2.

Insert Figure 2 about here

According to Kaplan, a person will tend to behave so as to maximize positive self-evaluation and minimize negative self evaluation. This principle is referred to as "the self-esteem motive."

Therefore, according to this model, delinquency is a defensive response to self-derogation. For instance, if conventional means of obtaining and enhancing self-esteem are not present (i.e., adequate school performance, family support and peer support), the person will be uncommitted to family and peer groups' conventional means and values. In fact, according to Kaplan's theory, such a person not only loses the motivation to conform to the standards of conventional groups, but he or she simultaneously becomes motivated to actively deviate from the

FIGURE 2 KAPLAN'S DELINQUENCY-AS-ESTEEM-ENHANCEMENT MODEL



standards of that group. That is, the person will be motivated to seek other means to enhance self-esteem including perhaps delinquent, criminal or other deviant behaviour. Therefore, as represented in Figure 2, (a) negative self-evaluation (lower self-esteem) motivates a person to commit (b) delinquent acts. These acts, in turn, result in (c) positive self-evaluation (higher self-esteem). Finally, to the extent that the person's deviant behaviour leads to self-enhancing consequences, *and* the person is able to cope with any adverse consequences of the behaviour, the person will become committed to a pattern of deviant behaviour.

The developmental aspect of Kaplan's model is relevant to the present study. At younger ages, self-esteem is *negatively* related to delinquency, as noted in the above diagram. At later ages, however, delinquency and self-esteem are *positively* related due to the self-enhancing effects of delinquent acts. The self-enhancement effect begins to emerge during middle adolescence (Bynner, O'Malley and Bachman, 1981). For this reason, the present study focuses on children age 12 and under who have not yet committed delinquent acts.

Self-Esteem Literature: Some flaws.

One of the problems in the self-esteem and delinquency literature is the redundant use of one particular data set by several researchers (e.g., McCarthy & Hoge, 1984; Rosenberg & Rosenberg, 1978; Wells & Rankin, 1983). The data set collected by Bachman (1970; Bachman, O'Malley, & Johnston, 1978), while quite substantial (N=2277), is flawed.

The first major drawback of this sample is its exclusion of females. Second, all the respondents are aged 14 and above, and therefore possibly subject to the esteem-enhancing effects of delinquency outlined above (Bynner, et al., 1981). Finally, the data set analyzed in these studies was collected over 25 years ago. Consequently, much of the self-esteem research that has been undertaken is not representative of females or of the present cohort of young adolescents.

Self-Esteem: Additional Research.

Despite the prevalence of the Bachman (1970, 1978) data set, additional research has been conducted in the area of self-esteem and delinquency. One such study was conducted by Reynolds (1980). This study assessed the relationships among self-esteem, gender, age and classroom behaviour. His sample consisted of 54 predominantly white, low-middle class, fifth- and sixth- grade students from two private (parochial) schools. Both male and female students were included. A stepwise multiple regression analysis of the data yielded a multiple R of .59 ($p < .001$), accounting for approximately 35% of the shared variance between predictor and criterion variables. Self-esteem was moderately, and positively correlated with appropriate classroom behaviour, $r = .39$ ($p < .01$). This study provides support for the hypothesis that self-esteem is related to children's behaviour.

Smets and Hartup (1988) also were interested in the relationship between self-esteem and problem behaviour. These authors studied a group of 120 children referred for clinical treatment to outpatient clinics in northern Wisconsin. All of the

children were from intact nuclear families. Half of the subjects were aged 6 to 11 years and half were aged 12 to 16 years. Males and females were equally represented in each group. The sample was predominantly white and lower middle class.

The study yielded moderate negative correlations between self-esteem and number of behaviour problems reported by their parents. Correlations for the younger boys and girls were $-.59$ and $-.32$, respectively ($p < .05$); those for adolescent boys and girls were $-.44$ and $-.45$, respectively ($p < .05$). The authors stated that, "children with the most symptoms had lower self-esteem and perceived themselves as less socially competent with peers than did children with fewer symptoms" (Smets & Hartup, 1988, p. 245). This relationship was especially strong in cases of extreme behavioral symptomology. That is, those children exhibiting the highest incidence of behavioural problems also exhibited the lowest levels of self-esteem.

The above two studies support the hypothesis that self-esteem is correlated with the incidence of problem behaviour in children and early adolescents. However, due to the moderate magnitude of these correlations, the measurement of self-esteem alone does not provide a completely reliable and accurate method with which to predict problem behaviour in children. Consequently, for the present study, self-esteem is used in conjunction with moral maturity as a predictor of children's problem behaviour.

Self-Esteem and Moral Maturity

Few studies have been undertaken regarding the relationship between self-esteem and moral maturity. This may be due in part to the assumption that these constructs belong to qualitatively distinct domains of study. Self-esteem is seen as largely an affective construct, while moral maturity is generally considered to be cognitive in nature. In his 1980 study, Benninga acknowledged this widespread assumption when he referred to self-esteem and moral maturity as "apparently divergent orientations" (p. 26). The purpose of his study was to attempt to integrate these two orientations.

In Benninga's study, 40 middle class children ranging in age from five to six and a half years old, were administered age-appropriate measures of self concept, mental ability and moral judgement. The self concept measure yielded scores on each of four subscales: (a) fun, (b) academic-school, (c) self-assertion, and (d) self-separateness (a measure of detachment and solitude). A Piagetian moral judgement task was used, composed of a series of six moral dilemmas, two each dealing with (a) moral realism, (b) immanent justice, and (c) reciprocal punishment. These dilemmas were the same as those utilized by Piaget in 1932. Children's responses to these dilemmas were then scored as either "mature" or "immature" moral reasoning.

Upon collapsing his data, Benninga found that all three moral judgement factors were positively and significantly correlated ($p < .05$) with at least one of the four self-concept subscales. In addition, two of the self-concept subscales correlated at the .10 level of significance with the total moral judgement score. Specifically,

academic self-concept and self-separateness correlated with total moral judgement scores at .297 and .275, respectively. Total self-concept was also correlated with the moral judgement factor of reciprocal punishment ($r = .280, p < .10$). While the correlations yielded by Benninga's study are quite small, they do provide some support for the hypothesis that moral judgement and self-concept are positively related. Using the measures described above, it seems possible that the cognitive and affective domains may share some commonality.

Rationale for Further Study

As apparent in the above literature review, research on moral development is ongoing and extensive. The relationships between both moral maturity and delinquency and self-esteem and delinquency also continue to be scrutinized. Yet, several gaps in the literature remain. Very little recent research has been undertaken as to the relationship between moral maturity and self-esteem *per se*. In addition, most of the research regarding each of these two variables and their separate relationships to delinquency focuses on the behaviour of labelled, adjudicated delinquents. Further, most such research has been limited to adolescent samples. Little work has been done relating moral maturity and self-esteem to preadolescent children displaying problem behaviour, but who are not yet labelled as delinquent. Understanding the relationship between these variables in young children is crucial if children at risk for future delinquent behaviour are to be identified. Indeed, such children *must* be identified before the self-enhancing effect of delinquent behaviour

becomes manifest. This identification is the first step in preventing these children from entering the so-called "correctional" system. Kazdin (1993) concurs in this view, saying that "more focused and circumscribed interventions may be possible with early identification and small changes in the beginning of a trajectory toward maladjustment" (p. 137). The purpose of the present research is to take steps toward finding an effective means of identifying children at risk for delinquency, thereby facilitating an early change in their possible "trajectory toward maladjustment."

CHAPTER 3

Procedures

In this chapter, the hypotheses under investigation are presented. In addition, detailed information regarding the reliability, validity and limitations of the four instruments used to test the hypotheses is provided. Characteristics of the sample are described, and the questionnaire administration and scoring procedures are outlined.

Hypotheses

Based on the above review of Kohlberg's and Gilligan's theories of moral development the following six hypotheses were analyzed:

- (1) There will be no differences between male and female moral maturity scores as measured by the SRM-SF, nor between their self-esteem scores as measured by Coopersmith's SEI. As such, it will be possible to perform subsequent analyses on the entire sample.
- (2) Children's self-esteem (SEI) and moral maturity (SRM-SF) scores will predict whether a child's teacher- or parent-generated MESSY score falls into the "high problem behaviour" or "low problem behaviour" category.
- (3) Using scores from both the SEI and the SRM-SF will predict problem behaviour more accurately than either variable used alone. More specifically, each of these variables will retain enough unique variance with the criterion

variable (problem behaviour as measured by the MESSY) such that using both of them is warranted.

- (4) The relationship between self-esteem (SEI) and moral maturity (SRM-SF) scores in delinquents also will hold true for children displaying problem behaviour as measured by the MESSY. Specifically, SEI scores will be directly related to SRM-SF scores (i.e., low self-esteem scores will correspond with low moral maturity scores).
- (5) Self-esteem as measured by the SEI will be inversely related to problem behaviour scores obtained from the MESSY (i.e., low self-esteem will correspond with high levels of problem behaviour).
- (6) Moral maturity scores obtained from the SRM-SF will be inversely related to MESSY scores (i.e., low moral maturity scores will correspond with high problem behaviour scores).

Instrumentation

Four variables are assessed in this study: two predictor variables (moral maturity and self-esteem), the criterion variable, (problem behaviour), and one control variable (socioeconomic status). Socioeconomic status will be used as a covariate to enable a pure statistical assessment of the relationship between the criterion and predictor variables. Gender and birthdate of the subjects will also be noted. The operational definitions of these variables are outlined below.

The Sociomoral Reflection Measure--Short Form.

Moral reasoning is most often assessed using Kohlberg's Standard Moral Judgement Interview (MJJ) (Colby et al., 1983). However, the MJJ is notoriously difficult to score and requires lengthy, one-on-one administration. While it has been the measure of choice for the assessment of moral reasoning, it is not feasible in the context of the present study. Furthermore, as described previously, the ecological validity of this measure has recently been called into question. Alternatively, the Sociomoral Reflection Measure -- Short Form (SRM-SF) (Gibbs, et al., 1992) will be used.

The SRM-SF consists of eleven questions, each addressing a different type of sociomoral reasoning. For example, Question 9 reads: "How important is it for people not to take things that belong to other people?" Subjects are asked to evaluate the statement (very important, important, not important), and also to write down why they chose that particular evaluation. The remaining questions and accompanying score sheet are reproduced in Appendix V.

The structure of the SRM-SF is different from the MJJ in that moral dilemmas *per se* are not provided. Instead, simple lead-in statements, like the above noted example, are used. This format change represents an important methodological contribution to the field of moral judgement measurement. "Indeed, these stripped-down contextual statements seem to preclude or reduce the extraneous details through which one must otherwise labour when scoring responses elicited by dilemma-based instruments" (Gibbs, et al., 1992, p. 38). Not only is the new format

advantageous for those scoring the protocols, it also reduces the amount of reading required of subjects using dilemma-based production (Kohlberg's MJI) or recognition measures (Rest's Defining Issues Test). Further, Gibbs and his colleagues note that the lead-in statements used in the SRM-SF seem to provide "sufficient contextual support for (sociomoral) reflection even with children and delinquents" (p. 38).

In addition to its streamlined structure, the SRM-SF demonstrates acceptable psychometric properties. It has proven to be highly reliable and valid in recent research (Basinger, et al., 1991; Gibbs, et al., 1992). Test-retest reliability ranges from .68 (Grade 8) to .83 (University), with a mean of .78 for the total sample. In all sub-samples (Grade 4 through University), the subjects' scores across two administrations differed by fewer than 20 points on a 300 point scale ($p < .0001$). The SRM-SF is also highly internally consistent with a Cronbach's α of .93. Interrater reliability is also quite high, ranging between .94 and .99.

Gibbs et al. (1992) state that the discriminative validity of this measure is acceptable. The SRM-SF successfully distinguishes between "normal" and morally developmentally delayed individuals (i.e., delinquents), even with the effects of age, SES and verbal intelligence statistically controlled, $F(1,154) = 8.20, p < .005$.

Construct validity of the SRM-SF was also sufficient, demonstrated by its highly positive correlations with the subjects' age ($r = .66, p < .0001$) and verbal intelligence scores ($r = .49, p < .0001$). That is, in accordance with Piagetian theory,

one's level of moral reasoning increases with chronological age, and also, as a corollary, with one's verbal intelligence.

Regarding criterion validity, the SRM-SF is significantly correlated with Kohlberg's MJI ($r = .69, p < .0001$.) The authors state that this level of correlation between the two measures is adequate (Gibbs, et al., 1992, p. 39). Further, this level of correlation is similar in magnitude to that previously obtained between the long form counterpart of the Sociomoral Reflection Measure and Kohlberg's MJI (Basinger, et al., 1991, p. 31). In addition, the Defining Issues Test (DIT) (Rest, 1974), a multiple-choice instrument used to rate moral maturity, similarly correlates with the MJI, yielding a coefficient of .68 (Hains, 1984).

While the correlations between these newer measures of moral judgement and Kohlberg's MJI are statistically significant, the reader will have noticed that the magnitude of these correlations is moderate at best. Several reasons for this may be postulated. First, each of the newer instruments are tapping into a slightly different construct than the MJI. For instance, as outlined in Chapter 2, Gibbs' instruments are based on a Piagetian revision of Kohlberg's theory, and only attempt to measure "natural" not "existential" stages of moral judgement. Similarly, Rest's instrument measures moral judgement through the use of recognition only: no spontaneous productions of moral judgements are elicited. This difference alone renders it qualitatively distinct from both Kohlberg's and Gibbs' production measures.

Second, these newer instruments are most often group administered as paper-and-pencil tests, whereas Kohlberg's MJI is administered verbally, and one-on-one

with each subject. As such, the responses elicited from each type of instrument will be slightly different than those generated by the MJI.

An additional reason for the moderate magnitude of these criterion correlations may be the nature of the construct of moral judgement itself. Moral judgement can most certainly be considered a "soft" construct. That is, its precise nature and characteristics have not, as yet, been fully explained. Since there is no consensus as to what moral judgement really is, neither can there be exact agreement as to how this construct should be measured. (The differences in orientation between Kohlberg's and Gilligan's theories attest to this difference of opinion as to the "true" nature of morality and moral judgement.) In the opinion of the author, moral judgement may be considered a meta-construct, one which encompasses a wide range of both cognitive and affective processes.

In short, the construct of moral judgement does not lend itself to simple, straightforward measurement. It is a complex and multifaceted meta-construct about which no theoretical consensus has yet been reached. This complexity translates into many possibilities for measurement, each slightly different from the other. Therefore, the moderate correlations between each of the above measures and the MJI are not surprising.

To summarize, the SRM-SF is a highly reliable and valid measure of moral maturity, given the complexity of the construct that it attempts to measure. It is both more ecologically valid and more efficiently administered and scored than Kohlberg's original measure, the Moral Judgement Interview.

The Coopersmith Self-Esteem Inventory.

The Coopersmith Self-Esteem Inventory (SEI) (Coopersmith, 1981) will be used to assess the subjects' self-evaluations. This 58-item measure focuses on four dimensions of self-esteem: parental relationships (8 items), school (8 items), peers (8 items), and personal interests (26 items). A lie scale, consisting of an additional eight items, is also available for inclusion into the measure. However, in the current study, the lie scale was not administered. This practice is not uncommon when using the Coopersmith (eg., Reynolds, 1980).

According to Kokenes (1978), the construct validity of the above four subscales is strongly supported. In addition to demonstrating good validity, Coopersmith's SEI also demonstrates high test-retest reliability, yielding coefficients in the range of .88 to .96 (Coopersmith, 1967). Its internal consistency rating of .81 is also quite high (Spatz & Johnston, 1973). In short, the SEI has been cited as probably the best instrument available to measure global self-esteem (Sears, 1969; Kokenes, 1978).

The Matson Evaluation of Social Skills with Youngsters (MESSY).

The MESSY has been developed to measure both appropriate and inappropriate social skills in children (Matson, Rotatori & Helsel, 1983). According to Raymond and Matson (1989), "this scale assesses a broad domain of observable social behaviours, including a wide range of verbal and nonverbal behaviours

emphasising interpersonal effectiveness without harm to others, and consists of approximately equal numbers of positive and negative items" (p. 249).

The MESSY has been standardized on 744 children between the ages of 4 and 18. The self report form was administered to 422 children, and 322 children were rated using the teacher report form. The construction sample consisted of children from urban schools (parochial and public) in the Northern Illinois area. The teacher report sample consisted of children aged 4-15, with a mean age of 7.2 years. One hundred and seventy six males and 146 females were included.

Items for the MESSY were derived from the Child Behaviour Profile (Achenbach, 1978; Achenbach & Edelbrock, 1979), the Behaviour Problem Checklist, (Quay, 1977; Quay & Peterson, 1975) and the Conner's Hyperactivity Scale (Conners, 1969). Two independent raters assessed the above instruments. Items from these instruments deemed indicative of various levels of social skill were then pooled into one checklist. The 92 original items were then subjected to a factor analysis with Varimax rotation. Using a criterion item loading of .30, 64 of these original items were retained to comprise the Teacher Report Form of the MESSY. Two factors emerged from this analysis: Inappropriate Assertiveness/Impulsiveness (eigenvalue = 26.19) and Appropriate Social Skills (eigenvalue = 8.25).

Internal consistency of the MESSY is quite high, with a Cronbach's α of .95 (Matson, Macklin & Helsel, 1985). Test-retest correlations were not given directly for the construction sample. Instead the researchers conducted Pearson correlations on each item (after a two week interval) to establish a criterion correlation coefficient.

for exclusion/inclusion from the original pool. A correlation of .55 was chosen for the parent report items. Therefore, all items retained for factor analysis have a two-week test-retest correlation of at least .55. Compared with other measures of problem behaviour this level of test-retest reliability is acceptable. For instance, some scales on Achenbach's Child Behaviour Profile have test-retest coefficients as low as .26 (Wilson & Bullock, 1989). Similarly, scales on the Quay's Revised Behaviour Problem Checklist and Walker's Problem Behaviour Identification Checklist yield test-retest coefficients of .49 and .43, respectively (Wilson & Bullock, 1989).

In terms of validity, the MESSY fares quite well. Its Inappropriate Aggression/Impulsiveness factor correlates at .78 ($p < .01$) with the Aggressive scale on Achenbach's Child Behaviour Profile (Matson, 1990). This factor also correlates significantly with Achenbach's Social Withdrawal scale ($r = .58, p < .01$) (Matson, 1990). These correlations are not surprising, as the MESSY was derived, in part, from Achenbach's Child Behaviour Profile. In summary, the MESSY demonstrates psychometric properties well within the range of acceptability for instruments of this type.

The Duncan Socioeconomic Index -- Revised.

The Duncan Socioeconomic Index (DSI) (Duncan, 1961) and its revised counterpart (DSI-R) (Stevens & Featherman, 1981) are among the most widely used measures of occupational status in sociological research (Hodge, 1981). The DSI

and the DSI-R have been strongly recommended by sociologists for use in psychological research (Mueller & Parcel), and such usage has begun (Gottfried, 1985).

Based on the above recommendation, the revised version of the Duncan Socioeconomic Index (DSI-R) (Stevens & Featherman, 1981) was used in the present study. Its concurrent validity with other frequently used measures of SES is quite high. For instance, the DSI-R correlates with the Hollingshead four factor occupational index (Hollingshead, 1975) at .79 to .85 and with the Siegel Prestige index (Siegel, 1971) at .87.

The measure consists of a listing of 436 occupations which have been rank ordered on the basis of three criteria: occupational prestige, education and income. Unlike several previous measures of socioeconomic status, the DSI-R incorporates the education and income attributes of both males and females. It also uses more recent census data than its unrevised counterpart. The authors have stated that the DSI-R provides a more precise rating of socioeconomic standing than previous instruments of this type, which are based solely on occupational prestige (i.e., Siegel, 1971).

Method

Sample.

Grades 4, 5 and 6 students at two urban elementary schools (School District No. 61 - Greater Victoria) were sampled for this study. At School 1, two teachers

(one Grade 5 and one Grade 6 teacher) agreed to participate. Information sheets and permission slips (Appendix I) were sent home with each child in the two classes. Seventeen of the 56 permission slips were returned (30%): ten from the Grade 6 class and seven from the Grade 5 class. While this was a disappointingly low rate of return, the Grade 6 teacher from this school spontaneously commented on the wide range of students who participated. This teacher indicated that of the ten participating students in her class, four were among those considered "problem students" while the remaining six were not so considered.

Students in Grades 4 through 6 were sampled at School 2, for a total of four intact classes. Two of these classes were split-grade classes (Grades 4\5 and 5\6), and the remaining two were full Grade 5 and Grade 6 classes. Permission slips were sent home with all 110 children, of which 64 were returned, for a return rate of 58.2%. The overall return rate for both schools was 48.8%.

Regarding the gender ratio, males comprised a slightly larger proportion of the sample than did females in both schools. At School 1, 64.7% of the participants were male, and 35.3% were female. At School 2 the ratio was nearly equal, with males comprising 53.1% of the sample, and females comprising the remaining 46.8%. Participant's ages ranged from 9.42 years to 12.42 years. The mean age for the sample was 10.96 years.

Two Grade 5 girls and two Grade 6 boys were absent, due to illness, on the scheduled day of administration. All four of these students were from School 2. As

such, of the original sample of 83 students, complete information was obtained on 79.

Procedure.

Both the child's and the parents' permission were obtained prior to the data collection. Written consent was obtained from each parent or guardian using the "Request for Participation" form (Appendix I) noted above. Verbal consent from each child was obtained using the "Child Instructional Script" (see Appendices II and III). Each subject was informed that they could withdraw from the study at any time. None of the subjects exercised this option.

Confidentiality was insured by keeping all completed test materials in a secure filing cabinet throughout the duration of the study. In addition, each subject was assigned a code number. Once this code had been assigned to each protocol, all identifying material was removed from each questionnaire. All identifying materials, code sheets and data sheets were kept secure and will be destroyed upon publication of the study.

Children were administered the Sociomoral Reflection Measure - Short Form (Appendix V) and the Coopersmith Self-Esteem Inventory (Appendix VI) approximately one week after the receipt of completed permission slips. Participating students were administered the questionnaires in separate sessions along with their fellow classmates. The children were taken to a vacant classroom or

equivalent where they were asked to seat themselves at separate desks or no more than three children per worktable.

Once the children were seated and comfortable, the researcher read the instructions for each questionnaire aloud and answered any questions. (For a verbatim account of this instructional procedure see Appendices II and III.) Participants were also asked not to discuss their answers with each other until after everyone had completed the questionnaires. To control for any order effects, half of the classes completed the SRM-SF first, and the Coopersmith SEI second. The remaining three classes received the questionnaires in the reverse order.

As recommended in the manual for the SRM-SF, the researcher "walked around among the subjects as an encouragement for them to remain task-oriented" (Gibbs, et al., 1992, p. 44). As each participant completed the questionnaires, the researcher inspected each protocol to ensure that all items had been completed and, in the case of the SRM-SF, to ensure that at least seven of the eleven answers each contained one scorable response. (Gibbs, et al. (1992) stated that a minimum of seven scorable responses per subject are required to obtain valid SRMS ratings.) Every effort was made by the researcher to keep all distractions to a minimum during administration of the questionnaires.

Teachers were provided with one MESSY Teacher Rating Form (Appendix IV) for each participating child in their classes, which they received the same day that the children were administered their questionnaires. On the day of administration, MESSY Parent Rating Forms (Appendix IV) were also mailed to the parents or

guardians of each participating child. (These packages were not mailed until after the children had completed their questionnaires in the event that some children declined to participate.)

Each parent MESSY package included: a sheet of instructions, one or two MESSY questionnaires, depending on whether one or both parents had agreed to participate, and a stamped envelope addressed to the researcher. Parents were asked to indicate their occupation on the cover sheet of the MESSY. In addition, each parent was asked to indicate (if applicable) the occupation of their spouse or partner. This allowed the researcher to ascertain a more complete picture of the family's socioeconomic status in cases where only one parent/guardian had agreed to participate. Each occupation was then assigned a numerical value according to the revised Duncan Socioeconomic Index (Appendix VII). In all cases the highest obtained occupational rating of both parents/guardians was retained for covariate analysis.

In the event that parent questionnaires had not been returned to the researcher within a reasonable amount of time, parents were contacted by phone and asked: (a) if they had received their MESSY packages, and (b) if they were still willing to participate. All parents were still interested in participating, and replacement packages were sent where required.

Scoring.

All questionnaires were scored by the researcher. For both the Coopersmith SEI and the MESSY, scoring was very straightforward and unambiguous. For these two measures, the procedure involved merely transcribing Likert-type data from the questionnaires to the score sheets (see Appendices IV and VI), summing raw data, and, in the case of the MESSY, converting raw scores to T-scores.

Scoring was somewhat more ambiguous in the case of the moral maturity measure, the SRM-SF. Also, since the SRM-SF protocols were scored by the researcher alone, no interrater reliability estimates were possible. Fortunately, Gibbs et al. (1991) provided detailed criteria to evaluate the reliability and accuracy of one's scoring ability.

Learning to reliably score these protocols took many weeks of study and practice. Gibbs et al. (1991) stated that self-training usually requires at least 30 hours of such practice, preferably distributed over a period of four to eight weeks.

The researcher followed the prescribed steps of self-training outlined in the SRM-SF scoring manual (Gibbs, et al., 1990). First, all chapters of the manual were studied. Next, massed practice in scoring each of the eleven questions separately was undertaken. "Each exercise is made up of 25 typical responses, taken word-for-word from actual data. These sample responses were judged to be of average-to-challenging difficulty and to be heuristic for developing assessment skill" (Gibbs et al., 1991, p. 46).

Insert Figure 3 about here

Practice in scoring each question separately was followed by additional practice in scoring another 25 complete protocols, again taken from actual data. The researcher's scores on these protocols were then evaluated for reliability against the answer key provided in the manual. Figure 3 provides information on the minimum standards for interrater reliability suggested by Gibbs and his colleagues. In all categories the researcher's protocol scores are compared with the "correct" answers provided in the manual. According to Figure 3, the researcher's obtained scores exceeded the required standards of reliability and accuracy.

However, confidence in the SRM-SF scores used in the present study may be subject to some limitations. Subjects' SRM-SF protocols were scored over a period of eight weeks. Protocols scored early in this time period were scored again several weeks later. Some discrepancy was found between early and later scorings for these protocols. Sociomoral Reflection Maturity Scores (SRMS) obtained from the later scorings were retained for analysis, based on the assumption that scoring would become more accurate with increased practice.

Ideally, each protocol would have been scored by at least two independent raters who had each completed the self-training program outlined by Gibbs and his associates (1992). Unfortunately this was not possible within the constraints of the present study. However, every effort was made on the part of the researcher to

FIGURE 3 RELIABILITY OF SRM-SF PRACTICE PROTOCOLS

| Reliability Indicator | Minimum Required Standard | Obtained Standard |
|--|---------------------------|-------------------|
| SRMS correlation | $r = .800$ | $r = .987$ |
| Mean absolute SRMS discrepancy | 0.20 points | 0.10 points |
| Global stage agreement within one interval | 80% | 92% |
| Exact global stage agreement | 50% | 58% |

provide unbiased, accurate SRMS ratings. It is the opinion of the researcher that the ratings used in the present study provide a reasonable estimate of subjects' levels of moral maturity.

The covariate, socioeconomic status, was determined for each subject by matching the occupational description provided by parents on the cover sheet of the MESSY (see Appendix IV) with the closest available description listed in the DSI-R. As mentioned earlier, if occupational descriptions were provided for both the subject's mother and father, the highest SES rating was used in the analyses. In those cases where parents declined to provide such information, that subject was assigned the mean SES level for the school from which they were sampled. In addition, in those cases where parents failed to return the questionnaires altogether (eight cases), subjects were again assigned the mean rating for their school. (The mean SES rating was obtained by summing the DSI-R ratings obtained from the responding parents of each school and dividing this amount by the number of responding parents.) This substitution procedure was undertaken such that participants lacking SES ratings could still be included in the analyses based on teacher-generated behaviour ratings. In total, ten of the 79 subjects were assigned the mean SES rating for their school. While mean substitution may have resulted in a slightly inaccurate estimate of these ten subjects' SES ratings, this option was deemed preferable to being unable to use the subjects' data in other analyses.

CHAPTER 4

Results

This chapter briefly outlines each hypothesis, and indicates whether support for the hypotheses was obtained. The statistical procedures used to test each hypothesis are noted, and the specific outcome of each of these analyses is reported. *Post hoc* analyses are also discussed.

Hypothesis 1: Gender Differences

Hypothesis 1 stated that no differences were expected between male and female moral maturity or self-esteem scores. Two t-tests were conducted to test this hypothesis. Results of the tests support this hypothesis on both counts.

Gender differences were not found regarding moral maturity scores ($t(77) = .70, p > .05$). The mean Sociomoral Reflection Maturity Score (SRMS) for females was 226.9, and 221.9 for males. This corresponds to a mean Transition 2(3) global stage rating for females and a mean Stage 2 rating for males. However, a chi-square analysis performed on these global stage scores revealed no significant gender differences ($\chi^2(4) = .56, p > .05$). Similarly, while females ($\bar{x} = 145.9$) demonstrated slightly lower global self-esteem scores than males ($\bar{x} = 148.7$), this difference was not found to be significant ($t(77) = -.61, p > .05$).

As a *post hoc* analysis, the behaviour ratings of both teachers and parents were also tested for gender differences. Again, no such differences were found.

While both parents and teachers tended to rate females' behaviour slightly more favourably than males' behaviour, these differences were not significant (teachers: $t(77) = -1.53, p > .05$; parents: $t(69) = -1.87, p > .05$).

Given the absence of any gender differences in the three primary variables of this study (moral maturity, self-esteem and problem behaviour), all subsequent analyses were carried out on the entire sample when possible.

Hypothesis 2: Prediction of Problem Behaviour

Hypothesis 2 stated that children's self-esteem (SEI) and moral maturity (SRM-SF) scores will predict whether a child's teacher- or parent-generated MESSY score falls into the "high problem behaviour" or "low problem behaviour" category. Support was obtained for this hypothesis regarding teacher-generated MESSY scores only. Group membership could not be predicted based on parental behaviour ratings. Some general information regarding the MESSY and its scoring is provided below, followed by the specific results of the analyses.

The MESSY provides three measures of behaviour for each subject: appropriate social skills, inappropriate social skills, and total social skills. The total score is calculated by reversing the appropriate social skills score and adding it to the inappropriate social skills score. Therefore, the total score represents an individual's general level of social skills, such that the higher the total score, the worse the overall social skills (see Matson, 1990 for a complete discussion of scoring procedures).

Raw scores for each scale were then converted into T-scores, each with a mean of 50 and a standard deviation of ten (see Matson, 1990 for an outline of this procedure).

For the current study, standardized total parent and teacher MESSY scores were used as the criterion variable. This seemed most appropriate since only total scores were an accurate reflection of both appropriate and inappropriate behaviour. For instance, a child may demonstrate high levels of inappropriate behaviour, but also score high on the appropriate behaviour scale. Such a child would then receive a moderate overall score, quite likely very near to the mean. Conversely, a child with a combination of very high inappropriate behaviour and very low appropriate behaviour would receive an elevated total score.

In nearly all cases (97%), parent MESSYs were completed by the students' mothers or female guardians. Father's, or male guardians' data alone were collected in only two cases (3%). Fathers and mothers both completed questionnaires in 40% of the cases. (Since most parents/guardians indicated that they were the subject's mother or father, the terms "mother" and "father" will hereafter be used to refer to both parents and legal guardians.)

In order to discern any differences between father's and mother's behaviour ratings, a t-test for dependent samples was conducted on these data. No significant differences emerged for the 30 subjects for which both mother's and father's data were obtained ($t(29) = 1.70, p > .05$). For this reason, mothers' and fathers' ratings were combined to form a single index of parental ratings.

Mothers' ratings were used for the parental index in all cases except where only fathers' ratings were available. The decision to use mother's data (when available), instead of averaging the two values, was made due to the lower standard error obtained for mothers' ratings. Further, mothers' data were normally distributed, whereas fathers' data formed a bimodal distribution.

A paired t-test indicated that parents' ($\bar{x} = 49.09$) and teachers' ($\bar{x} = 47.39$) behaviour ratings were significantly different, ($t(70) = 2.12, p < .05$). As such, two discriminant function analyses were carried out, using parent- and teacher-based ratings as separate criterion variables. The results of the two discriminant analyses are presented further below.

Some insight into why parent- and teacher-generated MESSY scores were significantly different was provided by *post hoc* inspection of the distributions of these scores. These distributions, and accompanying descriptive statistics are provided in Table 1, and Figures 4 and 5.

Insert Table 1 about here

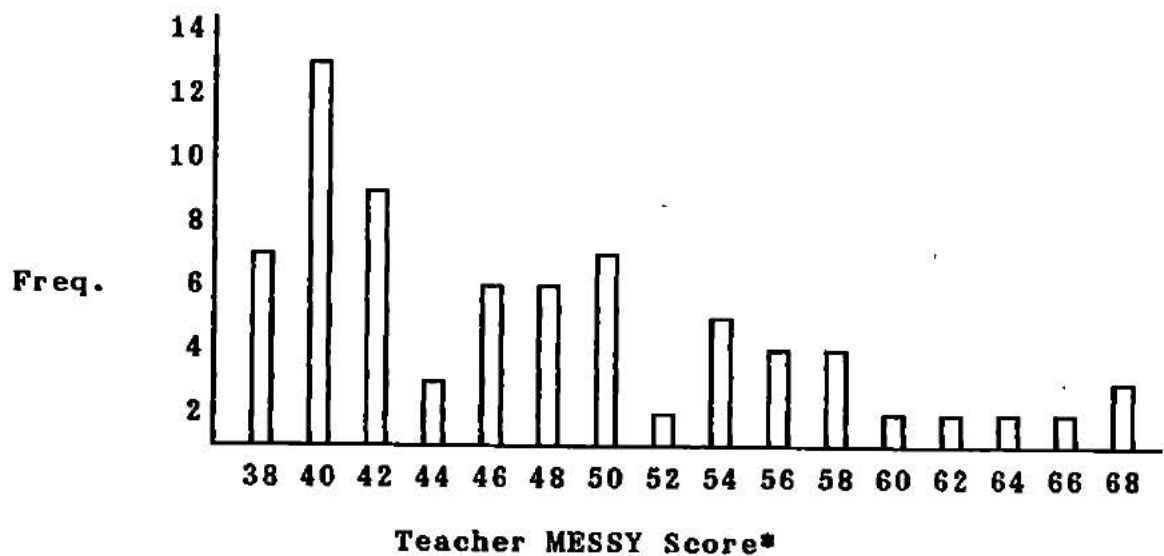
As seen in Table 1, the means of these two distributions are highly similar. However, their medians and modes are quite different. In addition, the range of parent MESSY scores is much narrower than that of teacher MESSY scores. Figures 4 and 5 depict the disparate shapes of the two distributions.

Insert Figures 4 and 5 about here

TABLE 1 DESCRIPTIVE STATISTICS ON PARENT AND TEACHER BEHAVIOUR RATINGS

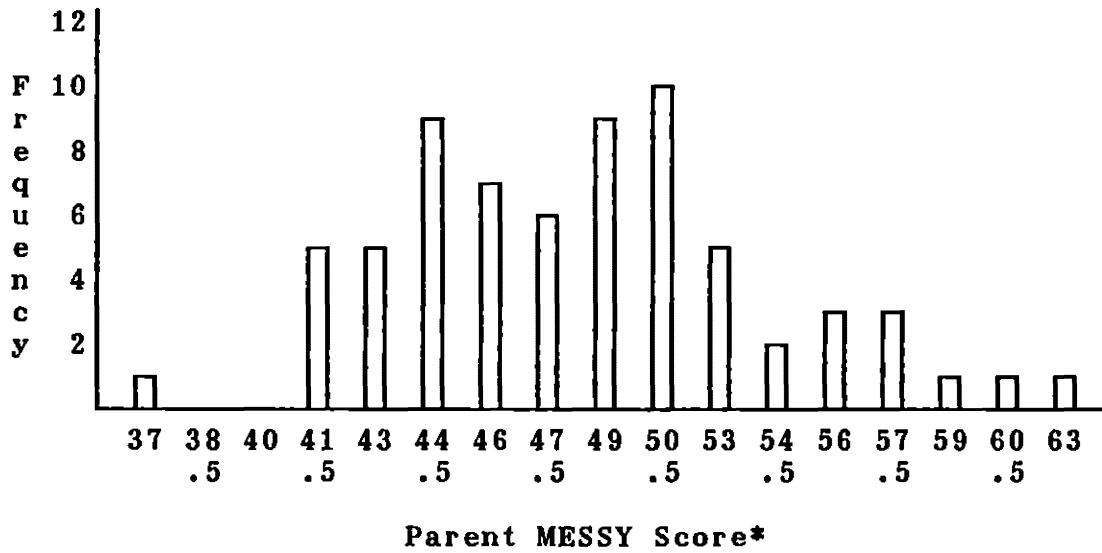
| | Parent Ratings (n = 71) | Teacher Ratings (n = 79) |
|-----------|----------------------------|-----------------------------|
| Mean | 49.09 | 48.16 |
| Median | 49.55 | 46.36 |
| Mode | 49.83 | 41.88 |
| Range | 26.46 | 31.93 |
| Std. Dev. | 5.13 | 8.36 |
| Maximum | 62.67 | 69.36 |
| Minimum | 36.21 | 37.43 |
| Skewness | .24 | .74 |

FIGURE 4 HISTOGRAM OF TEACHER MESSY SCORES



* Scores have been rounded to the nearest whole number

FIGURE 5 HISTOGRAM OF PARENT MESSY SCORES



* Scores have been rounded to the nearest half number

As demonstrated by the foregoing descriptive statistics, the use of parent- and teacher-generated behaviour rating scores resulted in markedly different subsamples. Teachers tended to rate more children as well-behaved than did parents. This tendency is evidenced by the marked positive skewness of the teacher-based distribution. Parents, on the other hand, were more likely to rate individual children as displaying average amounts of problem behaviours, hence the normal distribution of this sample.

Prediction of Group Membership Based on Teacher Behaviour Ratings.

It was hypothesised that moral maturity (SRM-SF) and self-esteem (SEI) scores will significantly contribute to the prediction of children's teacher-reported problem behaviour *at school* over that of socioeconomic status (SES) alone. To test this hypothesis, a hierarchical discriminant function analysis was performed using SPSS DISCRIMINANT. Prior to this analysis, SPSS FREQUENCIES and SPSS REGRESSION were used to test assumptions. All predictor variables were normally distributed, including the four subscales of the Coopersmith SEI. The covariate, SES, was also normally distributed. In addition, all residuals were both normally and linearly distributed. No univariate or multivariate outliers were found. Inspection of the zero order correlation matrix indicated no threat of multicollinearity or singularity. Homogeneity of variance-covariance matrices was indicated by a non-significant result on Box's M test ($M(6,10462.2) = 2.06. p > .05$).

Scores on the teacher MESSY were placed into two groups, "high problem behaviour" and "low problem behaviour," on the basis of their ranked standardized MESSY score (T-score). The highest 20 T-scores were placed in the "high" category ($\bar{x} = 59.92$) and the lowest 20 T-scores were placed in the "low" category ($\bar{x} = 39.39$). The remaining 39 subjects were excluded from the discriminant analysis. This procedure resulted in two groups of subjects, whose T-scores were separated by at least 1.32 standard deviations.

The grouping procedure also resulted in what appeared to be slight male over-representation in the high problem behaviour group: of the 20 subjects placed in this category, 13 were male and seven were female. However, this difference was not determined to be significant ($\chi^2 (1) = 1.80, p > .05$). Males and females were evenly distributed in the low problem behaviour group, with ten children of each gender assigned to this category.

Socioeconomic status was entered into the analysis prior to any other predictors in order to control for its effect. At step one, SES was not a significant predictor of group membership ($F = 1.21, p > .05$). At step two, both self-esteem and moral maturity were entered, as a block, into the model. The addition of these two variables resulted in an improvement in the overall prediction equation. One discriminant function was calculated, which significantly discriminated between subjects with high and low MESSY scores, ($\chi^2 (3) = 8.19, p < .05$). The canonical correlation for this discriminant function was .448. This value, when squared,

indicates that this model accounts for 20.1% of the variance between the discriminant function and the predictor variables.

Insert Table 2 About Here

As seen in Table 2, the loading matrix of correlations between the predictor variables and the discriminant function suggests that self-esteem is the most salient factor in classifying subjects as demonstrating either high or low problem behaviour. Subjects placed in the high problem behaviour group demonstrated significantly lower self-esteem ($\bar{x} = 138.8$) than those not so classified ($\bar{x} = 154.5$, $F(1,38) = 7.32$, $p < .02$). Both socioeconomic status and moral maturity failed to contribute significantly to prediction in this model.

The classification procedure indicated that 70% of the subjects could be correctly classified, compared to the 50% that would be correctly classified due to chance alone. Of those in the high problem behaviour group, 15 of 20 (75%) subjects were classified correctly. Thirteen of 20 (65%) subjects demonstrating low problem behaviour were correctly identified. Although cross-validation runs would be desirable in order to ascertain the internal reliability of the classification scheme, the small sample size ($n = 40$ for grouped data) rendered pursuit of this option unwise.

Given the significance of the overall canonical correlation, McNemar's repeated measures chi-square test (see Tabachnick & Fidell, 1989) was used to determine if classification of subjects into groups would be reliably enhanced by the

TABLE 2 RESULTS OF HIERARCHICAL DISCRIMINANT FUNCTION ANALYSIS FOR TEACHER BEHAVIOUR RATINGS

| Step | Variable | Correlations of variables with discrim. function | Univariate F (1, 38) | Zero order correlations among variables | |
|------|----------|--|-------------------------|---|------|
| | | | | SRMS | SEI |
| 1 | SES | -.033 | 1.21 | -.001 | -.03 |
| 2 | SRMS | .356 | <1 | | .12 |
| 2 | SEI | .875 | 7.32* | | |

* $p < .02$

n = 40 for all values

addition of moral maturity and self-esteem scores. No significant improvement in classification was obtained, ($\chi^2(1) = 2.12, p > .05$).

Overall, the above analysis demonstrates that it may be possible to predict subjects' teacher-based group membership on the basis of their *combined* ratings of socioeconomic status, moral maturity and self-esteem scores. However, in this sample, such prediction was most strongly facilitated by the effect of self-esteem. Moral maturity and SES ratings contributed very little to predictive accuracy. Possible explanations of these findings will be presented in Chapter 5.

Prediction of Group Membership Based on Parent Behaviour Ratings.

A second hierarchical discriminant function analysis was carried out to determine if group membership based on parent's MESSY ratings of their children's behaviour *at home* could be better predicted using children's self-esteem and moral maturity scores in addition to their socioeconomic status. This is the same hypothesis as tested in the previous section. However, it is being considered separately due to the finding reported earlier that parents' and teachers' MESSY ratings were significantly different.

Again, all assumptions regarding normality and linearity were met. In addition, a Box's M analysis was once again conducted to test for homogeneity of the variance-covariance matrices for this sample. This test revealed that these matrices were indeed homogenous ($M(6,10462.2) = 9.01, p > .05$).

Groups for this analysis were formed in the same manner as previously: the 20 highest ($\bar{x} = 55.37$) and 20 lowest ($\bar{x} = 43.16$) standardized parent MESSY ratings were assigned to the "high" and "low" problem behaviour groups, respectively. However, since parents' ratings encompassed a much narrower range than those of teachers (see Table 1), the same grouping procedure resulted in highly dissimilar samples for each analysis. For example, categorizing subjects in this manner resulted in two groups whose standardized parental MESSY scores were separated by a minimum of .62 standard deviations. This is less than half of the minimum difference between high and low problem behaviour groups obtained from the teacher-generated behaviour ratings. Furthermore, only seven children were placed in the high problem behaviour category in both analyses. Only eight children were placed in the low problem behaviour category in both analyses. In addition, five children were classified as demonstrating high problem behaviour in one analysis and low problem behaviour in the other.

Contrary to the previous analysis, males were significantly over-represented in the high problem behaviour category. Fifteen of the members of this group were males, while only 5 were female ($\chi^2(1) = 5.00, p < .05$). No gender differences in low problem behaviour group membership were obtained.

Once again, SES was entered into the equation first, so the effects of adding SRMS and SEI to the model could be assessed. As with the previous analysis, SES alone failed to predict group membership ($F < 1$). The addition of moral maturity

and self-esteem also failed to improve the overall classificatory success of this model. One discriminant function was obtained, yielding a canonical correlation of .318 ($\chi^2(3) = 3.89, p > .05$). Only 62.5% of cases based on parental MESSYs were correctly classified, not enough to approach significance with a sample of this size. The substantial restriction in the range of parent MESSY scores compared with that of teacher MESSY scores may also be a factor in this non-significant result.

Hypothesis 3: Separate Predictive Utility of Self-Esteem and Moral Maturity.

It was hypothesised that both moral maturity (SRM-SF) and self-esteem (SEI) scores would each contribute significantly to the prediction of group membership, thus warranting the use of both of these measures in the model. Results indicated no support for this hypothesis, regardless of the source of the behaviour ratings.

The univariate F values generated for these variables from each hierarchical discriminant function analysis were compared in order to test this hypothesis. Values pertaining to the first analysis, based on teacher-generated behaviour ratings, are presented in Table 2. Since none of the predictor variables or the covariate are intercorrelated (see Table 2), these F values, and their corresponding loadings, can be interpreted as each variable's unique contribution to prediction.

It is apparent from the reported values that moral maturity and self-esteem do not contribute equally to the prediction of group membership. In this sample,

moral maturity fails to contribute to prediction altogether, while self-esteem accounts for nearly all of the predictive power of the model.

The pattern of results is similar for the second discriminant analysis based on parent-generated behaviour ratings. SRMS scores fail to contribute to prediction in this sample as well ($F(1,38) = 1.52, p > .05$). Self-esteem scores fare somewhat better, yielding an F ratio (df 1,38) of 3.02, which approaches significance ($p < .10$).

As apparent by these data, the inclusion of both moral maturity and self-esteem in this model is not necessary. In fact, it seems likely that moral maturity could be removed from the model without any loss of predictive or classificatory effectiveness. Possible reasons for this unexpected result are later outlined in Chapter 5.

Directional Hypotheses 4, 5 and 6.

Three directional hypotheses were made regarding the relationships among the three primary variables in this study: moral maturity, self-esteem and problem behaviour. While the above results pertain to the two sets of 40 subjects, the following results are based on the entire sample where possible. Results pertaining to separate behaviour ratings will be based on 79 subjects for teacher data, and 71 subjects for parent data. All correlations are presented in Table 3.

The first of the three hypotheses predicts that moral maturity and self-esteem will be directly related. Table 3 indicates that while children's moral maturity scores (SRMS) are not significantly related to their global self-esteem (SEI), these scores are

related to children's reports of parental self-esteem (PARENT). This means that children who have higher self-esteem regarding their home life and relationship with their parents tend to have higher moral maturity scores. This relationship is in the predicted direction, thereby providing some support for Hypothesis 4.

Insert Table 3 about here

Hypothesis 5 posits that self-esteem and problem behaviour will be inversely related. Results of the study also support this hypothesis. Global self-esteem is negatively and significantly correlated with both teacher- and parent-generated behaviour ratings (see Table 3). This indicates that children with high MESSY ratings, regardless of the source of these ratings, will tend to report lower levels of self-esteem (SEI).

More specifically, children with higher teacher-reported problem behaviour tend to display lower parental and school-related self-esteem. As noted in Table 3, the relationship between school-related self-esteem and teacher reports of behaviour is especially strong. Interestingly, children with high levels of parent-reported problem behaviour demonstrated lower scores in the two other subscales of the self-esteem measure, peer- and self-related self-esteem. Overall, this pattern of results provides support for the general hypothesis that self-esteem scores and reports of problem behaviour are inversely related.

No support was obtained for the hypothesis that moral maturity scores and problem behaviour scores would be inversely related (Hypothesis 6). While the

TABLE 3 SELECTED CORRELATIONS AMONG VARIABLES

| | SRMS | PARENT MESSYS ^a | TEACHER MESSYS |
|---------|-------|----------------------------|----------------|
| SRMS | | -.148 | -.075 |
| SEI | .148 | -.317* | -.276* |
| PEERS | .023 | -.314* | -.219 |
| PARENTS | .262* | -.238 | -.265* |
| SCHOOL | .096 | -.224 | -.345** |
| SELF | .098 | -.291* | -.200 |

* $p < .01$ ** $p < .001$ ^a Values for this column based on $n = 71$, all other values based on $n = 79$.

correlations between moral maturity and both types of behaviour ratings were in the expected direction (see Table 3), these correlations did not attain significance.

Summary of Results.

Support was obtained for four of the six hypotheses proposed in this study. First, as hypothesised, no differences were found between boys' and girls' moral maturity scores or their global stage rating scores. Similarly, no gender differences were found regarding self-esteem or overall teacher- and parent-generated behaviour scores.

Second, when subjects' teacher-generated MESSY scores were separated into high and low problem behaviour categories, group membership could be reliably predicted when SES, moral maturity scores and self-esteem scores were simultaneously included in the prediction equation. This result was not obtained when parents' MESSY scores were used. For both analyses, the addition of self-esteem and moral maturity scores to the equation did not significantly improve classification.

The above analyses also provided information on the specific relationship of each predictor with the discriminant function. Contrary to what was hypothesized, self-esteem accounted for nearly all the classificatory accuracy of the model in which teacher-generated MESSY scores were used. Moral maturity scores contributed extremely little to the prediction of group membership. Regarding the model in

which parent MESSY ratings were used, neither self-esteem nor moral maturity scores significantly enhanced prediction.

Regarding the three directional hypotheses, moral maturity was not found to be related to global self-esteem, but to only the parent-related subscale on the Coopersmith SEI. However, global self-esteem was found to be directly related to behaviour ratings provided by both parents and teachers. Finally, no support was found for the hypothesis that moral maturity and reports of problem behaviour would be inversely related. The foregoing results are discussed below in light of their implications for the overall purpose of this study: the prediction of problem behaviour in children.

CHAPTER 5

Discussion and Limitations

In this chapter, possible explanations for the above results are presented. A discussion of the relationship between the results of the study and the expectations raised by the literature review is included. Comments on the limitations of the study, regarding both the sample and the instrumentation, are made.

Discussion

Lack of Gender Differences.

The results of the present study provide support for some of the earlier work conducted regarding self-esteem, moral maturity and problem behaviour, but also point to several areas which require further research. The lack of gender differences in moral maturity obtained in the sample lends support to Walker's (1984) view that the moral reasoning ability of females and males is more similar than different.

Similar too, in the present sample, are male and female self-esteem scores. Finally, no gender differences were found regarding reports of problem behaviour, regardless of the source of these reports.

Distributions of Parents' and Teacher MESSY Scores.

The distributions of parent and teacher reports of children's problem behaviour were significantly different in the present sample. Teachers tended to give

more favourable assessments of behaviour (i.e., lower MESSY scores) more frequently than parents. Two possible explanations for the differences in the distributions are immediately apparent. First, parents and teachers were asked to rate behaviours that occurred in two different environments: at home and at school. It is quite probable that children's behaviours are somewhat dependant on the environment, and on the behavioural limits placed therein. For example, the higher frequency of favourable behaviour ratings provided by teachers over that of parents could be a function of the more structured nature of the classroom environment, which may allow for less overt problem behaviours.

A second explanation may be that parents and teachers have different perceptions of the same behaviours. For instance, a teacher may tolerate quite a high level of boisterousness in children before considering that behaviour problematic. A parent, on the other hand, may consider any such behaviour completely unacceptable. Or, the opposite scenario may hold true: perhaps a parent would tend to tolerate high levels of boisterous behaviour while a teacher may be intolerant of the same level of such behaviour. These two examples illustrate that the same behaviour may be perceived differently by different people. Some combination of the above (environment-based vs. perception-based) explanatory suggestions may play a part in the markedly different distributions of parent and teacher behaviour ratings obtained in the study.

Prediction of Problem Behaviour.

The most encouraging result of the study is that, in the present sample, self-esteem and moral maturity scores can be used to predict problem behaviour scores in some children. It seems that self-esteem scores are more efficacious in this regard than moral maturity scores, ^(and) This result is contrary to what the literature review would lead one to expect. Previous work has indicated that while self-esteem and delinquency correlate at statistically significant levels, often sample sizes are very large, rendering such correlations clinically useless. In fact, McCarthy and Hoge (1984) state that the typical obtained correlation of .10 is "somewhat of an embarrassment" (p. 407).

Why did self-esteem predict so well in this sample? One possibility is that most previous research has been conducted on adolescent subjects, those who may have already been influenced by the esteem-enhancing effect of delinquency (Kaplan, 1977, 1988) which Bynner, et al. (1981) posit may come into effect about age 13 years. The present research, however, was conducted on children *under* this theorized age marker. As such, the relatively high predictive utility of self-esteem scores obtained in this sample indicates that while self-esteem may not be strongly related to delinquency, it is somewhat more strongly connected with problem behaviour in pre-adolescents. Therefore, some support has been obtained for the developmental aspect of Kaplan's (1977, 1988) model described above (see Figure 2). Although this finding is encouraging, replication is necessary to ascertain whether this result can be generalized, or whether it is an artifact of the sample.

The most surprising result of the study was the negligible predictive utility of moral maturity as measured by the SRM-SF. Past work on moral maturity and delinquency, with this measure and others, would lead one to expect a more favourable result (Arbuthnot & Gordon, 1988; Arbuthnot, 1984; Basinger, et al., 1991; Chandler & Moran, 1990; Hayes & Walker, 1986; Kaplan & Arbuthnot, 1985). Researchers have tended to find that delinquents score at preconventional levels, while their matched, non-delinquent peers are rated as conventional reasoners.

If, for the present study, the above Kohlbergian terminology was framed in Gibbs' dichotomous nomenclature, high problem behaviour children would tend to score at immature levels, while low problem behaviour children would obtain mature sociomoral reasoning scores. In this sample, however, most children (83%) scored at immature levels regardless of their behaviour rating. Scores at the immature level are typical for subjects in late childhood (Colby, et al., 1983; Gibbs et al., 1992).

It seems that moral maturity scores, by virtue of their high correlation with age, can not be used to predict problem behaviour in pre-adolescents. This is because most children aged nine to twelve years are *expected* to score at an immature level. It is the opinion of the author that delinquents are distinguishable from non-delinquents at a later age only because they fail to move beyond the immature stages of reasoning as non-delinquents tend to do. In order to use moral maturity as an predictor of problem behaviour in children, an instrument capable of assessing subjects' probability of *future* moral reasoning development may need to be developed. Alternatively, a more precise, fine-grained method of assessing this

construct may be helpful. Such an instrument might yield greater variability among moral maturity scores, thereby enhancing its ability to predict problem behaviour in children.

Relationships Among Key Variables.

As noted earlier (see Table 3), children's moral maturity (SRMS) scores were significantly and positively related to their scores on the "parental" subscale of the self-esteem measure (SEI). SRMS scores were not significantly correlated with full-scale scores from the measure nor with any of its remaining subscales.

Why would children's moral maturity scores be correlated with their parent-based self-esteem scores? It is possible, since parents may be considered children's first moral teachers, that moral maturity scores may in some way be related to children's parent- or home-based self-esteem ratings. Since the present research was not designed to test this hypothesis, such explanations of the relationship between moral maturity scores and children's parent-based self-esteem subscale scores are speculative.

Global self-esteem scores were found to be inversely related to high problem behaviour ratings generated by both parents and teachers. This result supports both those of Reynolds (1980), and Smets & Hartup (1988), who also found that various measures of self-esteem were related to teacher's and to parent's child behaviour ratings. The correlations obtained by the above authors were similar, in magnitude and direction, to those yielded by the present study.

As noted in Table 3, parent MESSY ratings were exclusively correlated with the "peer" and "self" subscales of self-esteem, whereas teacher MESSY ratings were related to only the "parent" and "school" subscales. While this is an interesting pattern of results, further research is required to determine if such a pattern is stable across other populations, or whether it is merely an artifact of the particular sample.

It was hypothesised that low moral maturity scores would tend to correspond with higher levels of problem behaviour. No support was obtained for this hypothesis. However, this result may be partially due to the lack of variance in moral maturity scores noted above. Further research with subjects demonstrating a wider range of SRMS scores is warranted, in order to determine whether these two variables are at all related.

Limitations

Sample-based limitations.

While the study provides support for the hypothesis that some children's problem behaviour can be predicted, several limitations are also apparent. The study is limited by the socioeconomic composition of the sample. Subjects were, on average, from the middle to upper ranges of socioeconomic strata. As such, results can only be generalized to similar populations.

Another sample-based shortcoming, typical of studies conducted on problem behaviour (e.g., Roff & Wirt, 1984), is the overall low base rate of this behaviour. Low rates of problem behaviour are especially common in female samples. This is

exemplified in the present study by the significant under-representation of females in the parent-based high problem behaviour group. Consequently, this study provides little new information on the relationship of moral maturity and self-esteem to female problem behaviour.

Low base rates of problem behaviour also necessitated dividing subjects into "high" and "low" problem behaviour categories, thereby excluding subjects with moderate scores from the discriminant analyses. As a result, the classification scheme obtained from these analyses is valid only when applied to subjects displaying "high" or "low" MESSY scores as defined in the current study.

The use of volunteer subjects also presents a problem for the study, as it does for other research of this type. A certain amount of self- (or in this case, parental-) selection takes place with the use of permission slips or other such requests for participation. Further selection is then involved with the return (or non-return) of the completed questionnaires themselves. It is not possible to determine whether those families who declined to participate in this study were more likely to include children who engage in higher levels of problem behaviour than children from those families who did agree to participate.

Limitations of measurement.

Some other limitations of the study relate to the instrumentation used therein. The Matson Evaluation of Social Skills for Youngsters, while comprehensive in its inclusion of the types of behaviours to be rated, does not provide for a means of

classifying these behaviours into subtypes. For instance, Item 43 ("always thinks something bad is going to happen"), and Item 22 ("is a sore loser") are weighted the same as Item 52 ("gets into fights a lot"), Item 9 ("slaps or hits when angry"), and Item 7 ("takes things that are not his/hers without permission"). In the author's opinion, these two sets of items represent qualitatively distinct types of problem behaviour. The first two items seem to pertain to more *internal* cognitive or attitudinal sets, whereas the latter items clearly relate to *external* behaviour and the violation of the personal and property rights of others. As such, it may be beneficial to further subdivide the MESSY's "appropriate" and "inappropriate" behaviour categories into ones more sensitive to the distinction outlined above. Such distinctions could then be tested for validity using factor analytic procedures.

Another measurement-based limitation of the study is the absence of independent raters for the SRM-SF protocols. As indicated earlier, future studies should include at least two such raters so as to enhance confidence in the accuracy and reliability of these ratings.

The socioeconomic status measure used in this study (DSI-R) is also somewhat restricted in its feasibility. While it does provide SES ratings for several hundred occupations, it remained difficult to find exact matches for the occupational information provided by the parents who participated in this study. This is due, in part, to the fact that most of the ratings provided by the measure refer to lower socioeconomic status occupations, and, as previously noted, most of the subjects in the study were from the middle to upper socioeconomic strata. Further, while based

on the most recent census data available at the time of publication, such information is always somewhat dated.

One final problem was not due to the DSI-R itself, but instead a result of the often vague occupational information provided by parents. For instance, some parents recorded their occupations as "civil servant", or "self-employed". Such information was not sufficiently specific to allow completely accurate assignment of a socioeconomic status rating.

CHAPTER 6

Summary and Conclusions

This chapter provides an overall summary of the purpose and results of the present study. Some general suggestions for future research are also offered. The chapter concludes with a statement stressing the importance of continued research in the area of delinquency prevention.

General Summary

The primary purpose of this study was to determine whether reports of children's problem behaviour, as measured by the Matson Evaluation of Social Skills with Youngsters, were related to their self-esteem and moral maturity scores obtained from Coopersmith's Self-Esteem Inventory and from the Sociomoral Reflection Measure -- Short Form. Specifically, both self-esteem and moral maturity scores were tested for their ability (over that of parent's socioeconomic status alone) to correctly classify children's behaviour scores into either "high" or "low" problem behaviour categories. Statistically significant prediction of group membership was obtained when both predictor variables (self-esteem and moral maturity scores) and the covariate (socioeconomic status ratings) were simultaneously included in the model, and when teacher-generated behaviour scores were used as the criterion variable. Inspection of the correlations between each variable and the discriminant function indicated that self-esteem scores were responsible for the classificatory

effectiveness of the model. Overall significance of the predictive model was not obtained when parent-generated reports were used as the criterion variable. Restriction of range in the parent-based MESSY scores was cited as possibly contributing to the non-significant result.

Males and females were found to demonstrate similar levels of moral reasoning ability (SRM-SF scores), and each gender also displayed similar levels of global self-esteem (SEI scores). In addition, no differences were found between boys' and girls' MESSY scores when the entire sample ($n = 79$) was tested. However, gender differences did emerge when children's behaviour ratings were classified into groups: boys were significantly over-represented in the high problem behaviour category when parent-generated MESSY scores were used. Such over-representation in the high problem behaviour group was not found when teacher-generated MESSY scores were used as the criterion variable, nor in either of the parent- or teacher-based low problem behaviour groups.

Three directional hypotheses regarding the interrelationships among self-esteem, moral maturity and problem behaviour scores were tested. Global self-esteem scores were found to be inversely related to both teacher- and parent-generated MESSY scores, as hypothesized. However, children's obtained moral maturity scores were not related to their global self-esteem scores, but only to children's ratings of their home-based self-esteem, as measured by the "parent" subscale on Coopersmith's SEI. Finally, no relationship was found between

children's moral maturity scores and reports of their behaviour regardless of the source of these reports.

The present study, while subject to some limitations, does provide new and useful information regarding the prediction of problem behaviour in pre-adolescent children. Global self-esteem as measured by Coopersmith's SEI was found to be especially valuable to this end, correlating with the problem behaviour measure at a much higher level ($r \approx .30$) than in research which has used delinquent behaviour as the criterion variable ($r \approx .10$). Self-esteem scores seem to be more strongly related to *children's* MESSY scores than to various ratings of *adolescent* delinquency. The predictive ability of self-esteem scores in childhood may aid in the early identification of children at risk for delinquency.

Directions for Future Research

Since the overall goal of this study was to move toward reliable and accurate identification of children who may be at risk for delinquency, future research should focus on improving the classification scheme herein derived. While the predictors in this study (especially self-esteem scores) were found to be statistically effective in predicting group membership, correct classification was only 20% better than that obtained by chance. Substantial improvement in correct identification is required before such a classification scheme will become practically useful. Some improvement may be effected by expanding the sample, and fine-tuning the instrumentation, as described in the previous chapter. Further classificatory

enhancement might then be achieved by judiciously adding variables to, or removing them from, the current predictive model. The present study has indicated that moral maturity, as measured by the Sociomoral Reflection Measure -- Short Form, can be eliminated from the model. However, further research is necessary to determine which additional variables will enhance the prediction of problem behaviour in children.

Conclusion

The results of this study represent the first step towards the development of a reliable method for the early identification of children who may be at-risk for delinquent behaviour. Several weaknesses and strengths of this predictive model have been discussed, thereby facilitating its continued refinement. Additional empirical steps may now be taken, using the information generated from this study as a guide to continued research.

As increasing interpersonal violence continues to take its toll on our society, persistent effort must be made toward the identification of the precursors of such violence. If such steps are not taken, we, as social scientists, neglect our collective responsibility to contribute to society's well-being. It is imperative that the knowledge gained by continued research in the field of delinquency be used towards this aim. Research and practice must converge; moral action must result from moral theorizing.

References

- Achenbach, T. M. (1978). The Child Behaviour Profile: I. Boys aged 6-11. Journal of Consulting and Clinical Psychology, 46, 478-488.
- Achenbach, T. M., & Edelbrock, C. S. (1978). The Child Behaviour Profile: II. Boys aged 12-16 and girls aged 6-11. Journal of Consulting and Clinical Psychology, 47, 223-233.
- Arbuthnot, J. (1984). Moral reasoning development programmes in prison: Cognitive-developmental and critical reasoning approaches. Journal of Moral Education, 13(2), 112-123.
- Arbuthnot, J., & Gordon, D. A. (1988). Disseminating effective interventions for juvenile delinquents: Cognitively-based sociomoral reasoning development programs. Journal of Moral Education, 39(2), 48-53.
- Bachman, J. G. (1970). Youth in Transition (Vol. 2). Ann Arbor, Mich: Institute for Social Research.
- Bachman, J. G., O'Malley, P. M., & Johnston, J. (1978). Youth in Transition: Adolescence and Adulthood (Vol 6). Ann Arbor, Mich: Institute for Social Research.
- Basinger, K. S., Gibbs, J. C., & Fuller, D. (1991). Measuring moral judgment maturity: The Sociomoral Reflection Measure-Short Form. Paper presented at the meeting of the Society for Research in Child Development, Seattle.

- Baumrind, D. (1986). Sex differences in moral reasoning: Response to Walker's (1984) conclusion that there are none. Child Development, *57*, 511-521.
- Bear, G. G., & Richards, H. C. (1981). Moral reasoning and conduct problems in the classroom. Journal of Educational Psychology, *73*, 664-670.
- Blasi, A. (1980). Bridging moral cognition and moral action: A critical review of the literature. Psychological Bulletin, *88*, 1-45.
- Boyle, M. H. & Jones, S. C. (1985). Selecting measures of emotional and behavioral disorders of childhood for use in general populations. Child Psychology & Psychiatry, *26*(1), 137-159.
- Brannon, J. M., & Williams, D. (1986). The effectiveness of the Child Behaviour Checklist in identifying the behavioral patterns and security requirements of juvenile offenders. International Journal of Offender Therapy and Comparative Criminology, *30*(3), 195-210.
- Brell, C. D. (1989). Justice and caring and the problem of moral relativism: Reframing the gender question in ethics. Journal of Moral Education, *18*(2), 97-111.
- Bynner, J., O'Malley, P., & Bachman, J. (1981). Self-Esteem and delinquency revisited. Journal of Youth and Adolescence, *10*(6), 407-441.
- Caspi, A., Elder, Jr., G. H., & Bem, D. J. (1987). Moving against world: Life-course patterns of explosive children. Developmental Psychology, *23*, 308-313.

- Chandler, M., & Moran, T. (1990). Psychopathy and moral development: A comparative study of delinquent and nondelinquent youth. Development and Psychopathology, 2, 227-246.
- Colby, A., Kohlberg, L., Gibbs, J., & Lieberman, M. (1983). A longitudinal study of moral judgment. Monographs of the Society for Research in Child Development, 48(1-2), 1-124.
- Conners, C. A. (1969). A teacher rating scale for use in drug studies with children. American Journal of Psychiatry, 126, 152-156.
- Coopersmith, S. (1981). Self-Esteem Inventories. Palo Alto, CA: Consulting Psychologists Press.
- Duncan, O. D. (1961). A socioeconomic index for all occupations. In A. J. Reiss, Jr. (Ed.), Occupations and Social Status (pp. 109-138). New York: Free Press of Glencoe.
- Gibbs, J. C. (1977). Kohlberg's stages of Moral Judgement: A constructive critique. Harvard Educational Review, 47, 43-61.
- Gibbs, J. C. (1979). Kohlberg's moral stage theory: A Piagetian revision. Human Development, 22, 89-112.
- Gibbs, J. C., Arnold, K. D., & Burkhart, J. E. (1984). Sex differences in the expression of moral judgement. Child Development, 55, 1040-1043.
- Gibbs, J. C., Basinger, K. S., & Fuller, D. (1992). Moral Maturity: Measuring the development of sociomoral reflection. Hillsdale, NJ: Erlbaum.

- Gilligan, C., Ward, J., & McLean-Taylor, J. (1988). Mapping the Moral Domain. Cambridge: Harvard University Press.
- Gilligan, C. (1977). In a different voice: Women's conceptions of self and morality. Harvard Educational Review, 47(4), 481-517.
- Gottfried, A. W. (1985). Measures of socioeconomic status in child development research: Data and recommendations. Merrill-Palmer Quarterly, 31(1), 85-92.
- Hains, A. A. (1984). Variables in social cognitive development: Moral judgement, role-taking, cognitive process, and self-concept in delinquents and non-delinquents. Journal of Early Adolescence, 4(1), 65-74.
- Hayes, S. C., & Walker, W. L. (1986). Intellectual and moral development in offenders: A review. Australian and New Zealand Journal of Criminology, 19, 53-64.
- Hodge, R. W. (1981). The measurement of occupational status. Social Science Research, 10, 396-415.
- Hollingshead, A. B. (1975). Four Factor Index of Social Status, Unpublished manuscript, Yale University, Department of Sociology, New Haven.
- Huesmann, L. R., Eron, L. D., Lefkowitz, M. M., & Walder, L. O. (1984). Stability of aggression over time and generations. Developmental Psychology, 20(6), 1120-1134.
- Kaplan, H. B. (1977). Antecedents of deviant responses: Predicting from a general theory of deviant behaviour. Journal of Youth and Adolescence, 6, 89-101.

- Kaplan, H. B. (1978). Deviant behaviour and self-enhancement in adolescence. Journal of Youth and Adolescence, *7*(3), 253-277.
- Kaplan, P. J., & Arbuthnot, J. (1985). Affective empathy and cognitive role-taking in delinquent and nondelinquent youth. Adolescence, *20*(78), 323-333.
- Kazdin, A. E. (1993). Adolescent mental health: Prevention and treatment programs. American Psychologist, *48*(2), 127-141.
- Kohlberg, L. (1969). Stage and sequence: the cognitive-developmental approach to socialization. In D. A. Goslin (Ed.), Handbook of Socialization Theory and Research. Chicago: Rand-McNally.
- Kohlberg, L. (1976). Moral stages and moralization: the cognitive developmental approach. In T. Lickona (Ed.), Moral Development and Behaviour. New York: Holt, Rinehart & Winston.
- Kokenes, B. (1978). A factor analytic study of the Coopersmith Self-Esteem Inventory. Adolescence, *13*(49), 149-155.
- Leung, K., & Drasgow, F. (1986). Relation between self-esteem and delinquent behaviour in three ethnic groups: An application of item response theory. Journal of Cross-Cultural Psychology, *17*(2), 151-167.
- Lore, R. K., & Schultz, L. A. (1993). Control of human aggression: A comparative perspective. American Psychologist, *48*(1), 16-25.
- Martin, S. E., Sechrest, L. B., & Redner, R. (Eds.). (1981). New Directions in the Rehabilitation of Criminal Offenders. Washington, D. C.: National Academy Press.

- Matson, J. L., (1990). Matson Evaluation of Social Skills with Youngsters: Manual.
Worthington, OH: International Diagnostic Systems.
- Matson, J. L., & Esveldt-Davison, K. (1985). Matson Evaluation of Social Skills
with Youngsters (MESSY): Teacher Rating Form. Psychopharmacology
Bulletin, 21(4), 861-864.
- Matson, J. L., Macklin, G. F., & Helsel, W. J. (1985). Psychometric properties of
the Matson Evaluation of Social Skills with Youngsters (MESSY) with
emotional problems and self concept in deaf children. Journal of Behaviour
Therapy and Experimental Psychiatry, 16(2), 117-123.
- Matson, J. L., Rotatori, A. F., & Helsel, W. J. (1983). Development of a rating
scale to measure social skills in children: The Matson Evaluation of Social
Skills with Youngsters (MESSY). Behaviour Research and Therapy, 21(4),
335-340.
- McCarthy, J. D., & Hoge, D. R. (1984). The dynamics of self-esteem and
delinquency. American Journal of Sociology, 90(2), 396-410.
- McConaughy, S. H. (1985). Using the Child Behaviour Checklist and related
instruments in school-based assessment of children. School Psychology
Review, 14(4), 479-494.
- Mueller, C. W., & Parcel, T. L. (1981). Measures of socioeconomic status:
Alternatives and recommendations. Child Development, 52, 13-30.
- Muuss, R. E. (1988). Carol Gilligan's theory of sex differences in the development
of moral reasoning during adolescence. Adolescence, 23(89), 229-243.

- Piaget, J. (1965). The Moral Judgment of the Child. New York: Free Press
(originally published in English, London: Kegan Paul, 1932).
- Piaget, J. (1973) The Child and Reality. New York: Grossman. Quay, H. C.
(1977). Measuring dimensions of deviant behaviour: the behaviour problem
checklist. Journal of Abnormal Child Psychology, 5, 177-189.
- Raymond, K. L. & Matson, J. L. (1989). Social skills in the hearing impaired.
Journal of Clinical Child Psychology, 18(3), 247-258.
- Reynolds, W. M. (1980). Self-esteem and classroom behaviour in elementary school
children. Psychology in the Schools, 17, 273-277.
- Rest, J. R. (1974). Manual for the Defining Issues Test. Minneapolis: University of
Minnisota.
- Roff, J. D., & Wirt, R. D. (1984). Childhood aggression and social adjustment as
antecedents of delinquency. Journal of Abnormal Child Psychology, 12(1),
111-126.
- Rosenberg, F. R., & Rosenberg, M. (1978). Self-esteem and delinquency. Journal
of Youth and Adolescence, 7(3), 279-296.
- Sears, R. (1969). A treatment of worth. Contemporary Psychology, 14, 146-147.
- Sechrest, L., White, S. O., & Brown, E. D. (1979). The Rehabilitation of Criminal
Offenders: Problems and Prospects. Washington, D. C.: National Academy
of Sciences.
- Siegel, P. M. (1971). Prestige in the American Occupational Structure. Unpublished
doctoral dissertation, University of Chicago.

- Smets, A. C., & Hartup, W. W. (1988). Systems and symptoms: Family cohesion/adaptability and childhood behaviour problems. Journal of Abnormal Child Psychology, 16(2), 233-246.
- Smith, A. B., & Berlin, L. (1988). Treating the Criminal Offender (3rd Ed.). New York: Plenum Press.
- Snarey, J. R. (1985). Cross-cultural universality of social-moral development: A critical review of Kohlbergian research. Psychological Bulletin, 97(2), 202-232.
- Spatz, K. C., & Johnston, J. O. (1973). Internal consistency of the Coopersmith Self-Esteem Inventory. Educational and Psychological Measurement, 33, 875-876.
- Stevens, G., & Featherman, D. L. (1981). A revised socioeconomic index of occupational status. Social Science Research, 10, 364-395.
- Tabachnick, B. B., & Fidell, L. S. (1989). Using Multivariate Statistics (2nd ed.). New York: HarperCollins.
- Walker, L. J. (1980). Cognitive and perspective-taking prerequisites for moral development. Child Development, 51, 131-139.
- Walker, L. J. (1984). Sex differences in the development of moral reasoning: A critical review. Child Development, 55, 677-691.
- Walker, L. J. (1986). Sex differences in the development of moral reasoning: A rejoinder to Baumrind. Child Development, 57, 522-526.

Wells, E. L., & Rankin, J. H. (1983). Self concept as a mediating factor in delinquency. Social Psychology Quarterly, 46(1), 11-22.

Wilson, J. P., & Wilson, S. B. (1977). Psychological needs and moral judgement. Psychological Reports, 41, 475-479.

APPENDIX I

Request for Participation

Dear Parent(s);

I am currently studying for my Master's Degree in Educational Psychology. One of the requirements for this degree is to conduct research in the area of children's learning and development. I am interested in how children think and feel about themselves at home and at school.

In order to obtain information on this topic, children will be asked to fill out two questionnaires. On the first questionnaire I will be asking the children questions like: "How important is it to keep a promise?" and "How important is it for children to help their parents?" On the second questionnaire, I will be asking the children to indicate how well a sentence describes them. Some examples of these types of statements are: "I like to speak out in class" and "I try hard at the things I do." Completing these questionnaires will take about half an hour of your child(ren)'s time.

Parents will also be asked to complete a questionnaire regarding the behaviour of their child(ren) at home. This questionnaire will take about 15 minutes of your time. In addition, the home room teachers of the children will be asked to complete a similar questionnaire regarding the children's behaviour at school.

Participation in this study is voluntary. Information from this study will not be recorded on your child(ren)'s school record and will not affect his or her grades in any way. You or your child(ren) may withdraw from the study at any time. In order to ensure confidentiality, all the questionnaires will be destroyed upon completion of the study.

If you have any questions about the study, please feel free to contact me, Theresa Van Domselaar, at 656-7077, or my supervisor, Dr. Beverly Timmons, at the University of Victoria.

If you and your child(ren) would like to participate in this study, please indicate your consent by completing the form on the next page.

PLEASE COMPLETE THE FORM BELOW AND
HAVE YOUR CHILD RETURN IT TO HIS\HER TEACHER

I agree to participate in the study described above.
I also permit my child(ren) to participate in this
study, provided he\she\they also agree to participate.

Name(s) of *Child(ren)*: _____
(please print)

Name of *Parent(s)*:

Address: _____
(Street) (City)

(Postal Code)

Number of Parent Questionnaires needed: (Circle one) 1 2

Date: _____ Signature: _____

Would you like a summary of the results of this study
upon its completion?

Circle one: YES NO

Thank you for your participation!!

APPENDIX II

Child Information Script - Order #1

(Coopersmith then SRM-SF)

"Good Morning/Afternoon! My name is Theresa, and I'm here to ask all of you some questions. Your parents have given their permission for you to answer these questions for me, and they will be answering some questions too."

"I have two sets of questions for each of you to answer. The questions have to do with how you feel about yourself, your friends, your parents and school. This isn't a test, so there are no right or wrong answers to any of the questions. Just answer each question in the best way you can. Your parents and your teachers will NOT see your answers to any of the questions."

"If you have any questions while you are writing out your answers, please raise your hand and I will come over and help you. If, at any time, you decide that you don't want to answer the questions, please raise your hand and I'll come over to talk about that with you."*

"I'll now hand out the two sets of questions, and we'll go over the instructions together."

"The first set of questions asks about your feelings. Here are the instructions that are printed at the top of the first page:

'Please read each sentence carefully. Then circle the phrase below the sentence that best describes how you usually feel. There are no right or wrong answers. Your parents and teacher will not see your answers.'

"Now let's look at the second set of questions. Go ahead and fill in your name and your birthday, and circle if you are a girl or a boy.

"Let's go over the instructions printed on the first page:

*'In this questionnaire, I want to find out about the things you think are important for people to do, and especially why you think these things (like keeping a promise) are important. Please try to help me understand your thinking by **WRITING AS MUCH AS YOU CAN TO EXPLAIN – EVEN IF YOU HAVE TO WRITE OUT YOUR EXPLANATIONS MORE THAN ONCE.** Don't just write "same as before." If you can explain better or use different words to show what you mean, that helps me even more. Please answer all the questions, especially the "why" questions. If you need to, feel free to use the space in the margins to finish writing your answers.'*

"Remember, the instructions are printed on the first page of each handout if you need to look them over. If you have any questions while you are writing out your answers, just raise your hand and I'll help you.

"Please turn back to the first handout. **Does anyone have any questions before we get started?** (Any questions that arise will be answered promptly.) You may begin."

*If a child indicates that he/she does not want to participate, I will first talk with him/her to determine whether he/she may just not understand the task or a particular question. If the child does understand the task or question, and still does not wish to participate, the child will be allowed to return to his/her home room to complete a task of the teacher's choosing.

APPENDIX III

Child Information Script - Order #2

(SRM-SF then Coopersmith)

"Good Morning/Afternoon! My name is Theresa, and I'm here to ask all of you some questions. Your parents have given their permission for you to answer these questions for me, and they will be answering some questions too."

"I have two sets of questions for each of you to answer. The questions have to do with how you feel about yourself, your friends, your parents and school. This isn't a test, so there are no right or wrong answers to any of the questions. Just answer each question in the best way you can. Your parents and your teachers will NOT see your answers to any of the questions."

"If you have any questions while you are writing out your answers, please raise your hand and I will come over and help you. If, at any time, you decide that you don't want to answer the questions, please raise your hand and I'll come over to talk about that with you."*

"I'll now hand out the two sets of questions, and we'll go over the instructions together."

"The first set of questions asks about some of the things that you might do in different situations. Go ahead and fill in your name and your birthday, and circle if you are a girl or a boy. Here are the instructions that are printed on the first page:

*'In this questionnaire, I want to find out about the things you think are important for people to do, and especially why you think these things (like keeping a promise) are important. Please try to help me understand your thinking by **WRITING AS MUCH AS YOU CAN TO EXPLAIN – EVEN IF YOU HAVE TO WRITE OUT YOUR EXPLANATIONS MORE THAN ONCE.** Don't just write "same as before." If you can explain better or use different words to show what you mean, that helps me even more. Please answer all the questions, especially the "why" questions. If you need to, feel free to use the space in the margins to finish writing your answers.'*

"Now let's look at the second set of questions. These questions ask about your feelings. Let's go over the instructions that are printed at the top of the first page:

'Please read each sentence carefully. Then circle the phrase below the sentence that best describes how you usually feel. There are no right or wrong answers. Your parents and teacher will not see your answers.'

"Remember, the instructions are printed on the first page of each handout if you need to look them over. If you have any questions while you are writing out your answers, just raise your hand and I'll help you.

"Please turn back to the first handout. **Does anyone have any questions before we get started?** (Any questions that arise will be answered promptly.) You may begin."

APPENDIX IV

Matson Evaluation of Social Skills

Teacher and Parent Rating Form

PLEASE PROVIDE THE FOLLOWING INFORMATION.

ALL INFORMATION WILL BE KEPT STRICTLY CONFIDENTIAL.

THANK YOU FOR YOUR COOPERATION

Rater's Name _____

Rater's Occupation _____

Occupation of spouse\partner _____

Child's Name _____

Rater's relationship to Child _____

DIRECTIONS

This survey is a measure of social behaviour. This assessment involves rating how often a child you're familiar with engages in the behaviours described in this survey.

Please rate how often the child demonstrates the behaviours in those situations where they might occur. Be sure to rate how often each behaviour is done, not what you think a good answer would be. Please answer each question. **No one will be told how you answer.**

RATING SCALE

1 NOT AT ALL
2 A LITTLE

3 SOME

4 MUCH OF THE TIME
5 VERY MUCH

Circle your answer

-
- | | | | | | |
|---|---|---|---|---|---|
| 1) Makes other people laugh (tells jokes, funny stories, etc.). | 1 | 2 | 3 | 4 | 5 |
| 2) Threatens people or acts like a bully. | 1 | 2 | 3 | 4 | 5 |
| 3) Becomes angry easily. | 1 | 2 | 3 | 4 | 5 |
| 4) Is bossy (tells people what to do instead of asking). | 1 | 2 | 3 | 4 | 5 |
| 5) Gripes or complains often. | 1 | 2 | 3 | 4 | 5 |
| 6) Speaks (breaks in) when someone else is speaking. | 1 | 2 | 3 | 4 | 5 |
| 7) Takes or uses things that are not his/hers without permission. | 1 | 2 | 3 | 4 | 5 |
| 8) Brags about self. | 1 | 2 | 3 | 4 | 5 |
| 9) Slaps or hits when angry. | 1 | 2 | 3 | 4 | 5 |
| 10) Helps a friend who is hurt. | 1 | 2 | 3 | 4 | 5 |
| 11) Gives other children dirty looks. | 1 | 2 | 3 | 4 | 5 |
| 12) Feels angry or jealous when someone else does well. | 1 | 2 | 3 | 4 | 5 |
| 13) Picks out other children's faults/mistakes. | 1 | 2 | 3 | 4 | 5 |
| 14) Always wants to be first. | 1 | 2 | 3 | 4 | 5 |
| 15) Breaks promises. | 1 | 2 | 3 | 4 | 5 |
| 16) Lies to get what he/she wants. | 1 | 2 | 3 | 4 | 5 |
| 17) Picks on people to make them angry. | 1 | 2 | 3 | 4 | 5 |
| 18) Walks up to people and starts a conversation. | 1 | 2 | 3 | 4 | 5 |

RATING SCALE

1 NOT AT ALL
2 A LITTLE

3 SOME

4 MUCH OF THE TIME
5 VERY MUCH

Circle your answer

-
- | | | | | | |
|--|---|---|---|---|---|
| 19) Says 'thank you' and is happy when someone does something for him/her. | 1 | 2 | 3 | 4 | 5 |
| 20) Is afraid to speak to people. | 1 | 2 | 3 | 4 | 5 |
| 21) Hurts other's feelings on purpose (tries to make people sad). | 1 | 2 | 3 | 4 | 5 |
| 22) Is a sore loser. | 1 | 2 | 3 | 4 | 5 |
| 23) Makes fun of others. | 1 | 2 | 3 | 4 | 5 |
| 24) Blames others for own problems. | 1 | 2 | 3 | 4 | 5 |
| 25) Sticks up for friends. | 1 | 2 | 3 | 4 | 5 |
| 26) Looks at people when they are speaking. | 1 | 2 | 3 | 4 | 5 |
| 27) Thinks he/she knows it all. | 1 | 2 | 3 | 4 | 5 |
| 28) Smiles at people he/she knows. | 1 | 2 | 3 | 4 | 5 |
| 29) Is stubborn. | 1 | 2 | 3 | 4 | 5 |
| 30) Acts as if he/she is better than others. | 1 | 2 | 3 | 4 | 5 |
| 31) Shows feelings. | 1 | 2 | 3 | 4 | 5 |
| 32) Thinks people are picking on him/her when they are not. | 1 | 2 | 3 | 4 | 5 |
| 33) Thinks good things are going to happen. | 1 | 2 | 3 | 4 | 5 |
| 34) Works well on a team. | 1 | 2 | 3 | 4 | 5 |
| 35) Makes sounds that bother others (e.g., burping, sniffing). | 1 | 2 | 3 | 4 | 5 |
| 36) Brags too much when (s)he wins. | 1 | 2 | 3 | 4 | 5 |

RATING SCALE

1 NOT AT ALL
2 A LITTLE

3 SOME

4 MUCH OF THE TIME
5 VERY MUCH

Circle your answer

-
- | | | | | | |
|---|---|---|---|---|---|
| 37) Takes care of others' property as if it were his/her own. | 1 | 2 | 3 | 4 | 5 |
| 38) Speaks too loudly. | 1 | 2 | 3 | 4 | 5 |
| 39) Calls people by their names. | 1 | 2 | 3 | 4 | 5 |
| 40) Asks if he/she can be of help. | 1 | 2 | 3 | 4 | 5 |
| 41) Feels good if he/she helps others. | 1 | 2 | 3 | 4 | 5 |
| 42) Defends self. | 1 | 2 | 3 | 4 | 5 |
| 43) Always thinks something bad is going to happen. | 1 | 2 | 3 | 4 | 5 |
| 44) Tries to be better than everyone else. | 1 | 2 | 3 | 4 | 5 |
| 45) Asks questions when talking to others. | 1 | 2 | 3 | 4 | 5 |
| 46) Feels lonely. | 1 | 2 | 3 | 4 | 5 |
| 47) Feels sorry when he/she hurts others. | 1 | 2 | 3 | 4 | 5 |
| 48) Gets upset when he/she has to wait for things. | 1 | 2 | 3 | 4 | 5 |
| 49) Likes to be the leader. | 1 | 2 | 3 | 4 | 5 |
| 50) Joins in games with other children. | 1 | 2 | 3 | 4 | 5 |
| 51) Plays by the rules of a game. | 1 | 2 | 3 | 4 | 5 |
| 52) Gets into fights a lot. | 1 | 2 | 3 | 4 | 5 |
| 53) Is jealous of other people. | 1 | 2 | 3 | 4 | 5 |
| 54) Does nice things for others who are nice to him/her. | 1 | 2 | 3 | 4 | 5 |
| 55) Tries to get others to do what he/she wants. | 1 | 2 | 3 | 4 | 5 |

RATING SCALE

1 NOT AT ALL
2 A LITTLE

3 SOME

4 MUCH OF THE TIME
5 VERY MUCH

Circle your answer

- | | | | | | |
|---|---|---|---|---|---|
| 56) Asks others how they are, what they have been doing, etc. | 1 | 2 | 3 | 4 | 5 |
| 57) Stays with others too long (wears out welcome). | 1 | 2 | 3 | 4 | 5 |
| 58) Explains things more than necessary. | 1 | 2 | 3 | 4 | 5 |
| 59) Is friendly to new people he/she meets. | 1 | 2 | 3 | 4 | 5 |
| 60) Hurts others to get what he/she wants. | 1 | 2 | 3 | 4 | 5 |
| 61) Talks a lot about problems or worries. | 1 | 2 | 3 | 4 | 5 |
| 62) Thinks that winning is everything. | 1 | 2 | 3 | 4 | 5 |
| 63) Hurts other's feelings when teasing them. | 1 | 2 | 3 | 4 | 5 |
| 64) Wants to get even with someone who hurts him/her. | 1 | 2 | 3 | 4 | 5 |

APPENDIX V*Sociomoral Reflection Measure - Short Form*

Social Reflection Questionnaire

Name: _____ **Date:** _____**Birthdate:** _____ **Gender (circle one):** boy girl**Instructions**

In this questionnaire, I want to find out about the things you think are important for people to do, and especially why you think these things (like keeping a promise) are important. Please try to help me understand your thinking by **WRITING AS MUCH AS YOU CAN TO EXPLAIN -- EVEN IF YOU HAVE TO WRITE OUT YOUR EXPLANATIONS MORE THAN ONCE.** Don't just write "same as before." If you can explain better or use different words to show what you mean, that helps me even more. Please answer all the questions, especially the "why" questions. If you need to, feel free to use the space in the margins to finish writing your answers.

1. Think about when you've made a promise to a friend of yours. How important is it for people to keep promises, if they can, to friends?

Circle one: very important important not important

WHY IS THAT VERY IMPORTANT/IMPORTANT/NOT IMPORTANT
(WHICHEVER ONE YOU CIRCLED)?

2. What about keeping a promise to anyone? How important is it for people to keep promises, if they can, even to someone they hardly know?

Circle one: very important important not important

WHY IS THAT VERY IMPORTANT/IMPORTANT/NOT IMPORTANT
(WHICHEVER ONE YOU CIRCLED)?

3. How about keeping a promise to a child? How important is it for parents to keep promises, if they can, to their children?

Circle one: very important important not important

WHY IS THAT VERY IMPORTANT/IMPORTANT/NOT IMPORTANT
(WHICHEVER ONE YOU CIRCLED)?

4. In general, how important is it for people to tell the truth?

Circle one: very important important not important

WHY IS THAT VERY IMPORTANT/IMPORTANT/NOT IMPORTANT
(WHICHEVER ONE YOU CIRCLED)?

5. Think about when you've helped your mother or father. How important is it for children to help their parents?

Circle one: very important important not important

WHY IS THAT VERY IMPORTANT/IMPORTANT/NOT IMPORTANT
(WHICHEVER ONE YOU CIRCLED)?

6. Let's say a friend of yours needs help and may even die, and you're the only person who can save him or her. How important is it for a person (without losing his or her own life) to save the life of a friend?

Circle one: very important important not important

WHY IS THAT VERY IMPORTANT/IMPORTANT/NOT IMPORTANT
(WHICHEVER ONE YOU CIRCLED)?

7. What about saving the life of anyone? How important is it for a person (without losing his or her own life) to save the life of a stranger?

Circle one: very important important not important

WHY IS THAT VERY IMPORTANT/IMPORTANT/NOT IMPORTANT
(WHICHEVER ONE YOU CIRCLED)?

8. How important is it for a person to live even if that person doesn't want to?

Circle one: very important important not important

WHY IS THAT VERY IMPORTANT/IMPORTANT/NOT IMPORTANT
(WHICHEVER ONE YOU CIRCLED)?

9. How important is it for people not to take things that belong to other people?

Circle one: very important important not important

WHY IS THAT VERY IMPORTANT/IMPORTANT/NOT IMPORTANT
(WHICHEVER ONE YOU CIRCLED)?

10. How important is it for people to obey the law?

Circle one: very important important not important

WHY IS THAT VERY IMPORTANT/IMPORTANT/NOT IMPORTANT
(WHICHEVER ONE YOU CIRCLED)?

11. How important is it for judges to send people who break the law to jail?

Circle one: very important important not important

WHY IS THAT VERY IMPORTANT/IMPORTANT/NOT IMPORTANT
(WHICHEVER ONE YOU CIRCLED)?

SRM-SF Rating Form

| Code#: _____ | | SRMS: _____ | |
|---------------------------------|----------------------|---|---|
| Rater: _____ | | Global Stage: _____ | |
| Date: _____ | | Moral Type B: Fundamental Valuing _____ Balancing _____ Conscience _____ | |
| # Moral Type B Components _____ | | | |
| Question | Highest Devt'l Level | Aspect Citations | Comments (e.g., Moral Type B components, marginal scores, Rules applied) |
| 1. Contract: Friends | | | |
| 2. Contract: Anyone | | | |
| 3. Contract: Children | | | |
| 4. Truth | | | |
| 5. Affiliation: Parents | | | |
| 6. Affiliation: Friends | | | |
| 7. Life: Stranger | | | |
| 8. Life: Self | | | |
| 9. Property | | | |
| 10. Law | | | |
| 11. Legal Justice | | | |

APPENDIX VI

*Coopersmith Self-Esteem Inventory
with Scoring Key***How do you feel about yourself?**

Please read each sentence carefully. Then circle the phrase below the sentence that best describes how you usually feel. There are no right or wrong answers. Your parents or teachers will not see your answers.

1) I spend a lot of time daydreaming.

| | | | |
|-----------------|-----------|-------------|----------------------|
| (A lot like me) | (like me) | (unlike me) | (not like me at all) |
| 1 | 2 | 3 | 4 |

2) I'm pretty sure of myself.

| | | | |
|-----------------|-----------|-------------|----------------------|
| (A lot like me) | (like me) | (unlike me) | (not like me at all) |
| 1 | 2 | 3 | 4 |

3) I often wish I were someone else.

| | | | |
|-----------------|-----------|-------------|----------------------|
| (A lot like me) | (like me) | (unlike me) | (not like me at all) |
| 1 | 2 | 3 | 4 |

4) I'm easy to like.

| | | | |
|-----------------|-----------|-------------|----------------------|
| (A lot like me) | (like me) | (unlike me) | (not like me at all) |
| 1 | 2 | 3 | 4 |

5) My parents and I have a lot of fun together.

| | | | |
|-----------------|-----------|-------------|----------------------|
| (A lot like me) | (like me) | (unlike me) | (not like me at all) |
| 1 | 2 | 3 | 4 |

6) I find it very hard to talk in front of the class.

| | | | |
|-----------------|-----------|-------------|----------------------|
| (A lot like me) | (like me) | (unlike me) | (not like me at all) |
| 1 | 2 | 3 | 4 |

7) I wish I were younger.

| | | | |
|-----------------|-----------|-------------|----------------------|
| (A lot like me) | (like me) | (unlike me) | (not like me at all) |
| 1 | 2 | 3 | 4 |

8) There are lots of things about myself I'd change if I could.

| | | | |
|-----------------|-----------|-------------|----------------------|
| (A lot like me) | (like me) | (unlike me) | (not like me at all) |
| 1 | 2 | 3 | 4 |

9) I can make up my mind without too much trouble.

| | | | |
|-----------------|-----------|-------------|----------------------|
| (A lot like me) | (like me) | (unlike me) | (not like me at all) |
| 1 | 2 | 3 | 4 |

10) I'm a lot of fun to be with.

| | | | |
|-----------------|-----------|-------------|----------------------|
| (A lot like me) | (like me) | (unlike me) | (not like me at all) |
| 1 | 2 | 3 | 4 |

11) I get upset easily at home.

| | | | |
|-----------------|-----------|-------------|----------------------|
| (A lot like me) | (like me) | (unlike me) | (not like me at all) |
| 1 | 2 | 3 | 4 |

12) I'm proud of my school work.

| | | | |
|-----------------|-----------|-------------|----------------------|
| (A lot like me) | (like me) | (unlike me) | (not like me at all) |
| 1 | 2 | 3 | 4 |

13) Someone always has to tell me what to do.

| | | | |
|-----------------|-----------|-------------|----------------------|
| (A lot like me) | (like me) | (unlike me) | (not like me at all) |
| 1 | 2 | 3 | 4 |

14) It takes me a long time to get used to anything new.

| | | | |
|-----------------|-----------|-------------|----------------------|
| (A lot like me) | (like me) | (unlike me) | (not like me at all) |
| 1 | 2 | 3 | 4 |

15) I'm often sorry for the things I do.

| | | | |
|-----------------|-----------|-------------|----------------------|
| (A lot like me) | (like me) | (unlike me) | (not like me at all) |
| 1 | 2 | 3 | 4 |

16) I'm popular with kids my own age.

| | | | |
|-----------------|-----------|-------------|----------------------|
| (A lot like me) | (like me) | (unlike me) | (not like me at all) |
| 1 | 2 | 3 | 4 |

17) My parents usually consider my feelings.

| | | | |
|-----------------|-----------|-------------|----------------------|
| (A lot like me) | (like me) | (unlike me) | (not like me at all) |
| 1 | 2 | 3 | 4 |

18) I'm doing the best work that I can.

| | | | |
|-----------------|-----------|-------------|----------------------|
| (A lot like me) | (like me) | (unlike me) | (not like me at all) |
| 1 | 2 | 3 | 4 |

19) I give in very easily.

| | | | |
|-----------------|-----------|-------------|----------------------|
| (A lot like me) | (like me) | (unlike me) | (not like me at all) |
| 1 | 2 | 3 | 4 |

20) I can usually take care of myself.

| | | | |
|-----------------|-----------|-------------|----------------------|
| (A lot like me) | (like me) | (unlike me) | (not like me at all) |
| 1 | 2 | 3 | 4 |

21) I'm pretty happy.

| | | | |
|-----------------|-----------|-------------|----------------------|
| (A lot like me) | (like me) | (unlike me) | (not like me at all) |
| 1 | 2 | 3 | 4 |

22) I would rather play with children younger than me.

| | | | |
|-----------------|-----------|-------------|----------------------|
| (A lot like me) | (like me) | (unlike me) | (not like me at all) |
| 1 | 2 | 3 | 4 |

23) My parents expect too much of me.

| | | | |
|-----------------|-----------|-------------|----------------------|
| (A lot like me) | (like me) | (unlike me) | (not like me at all) |
| 1 | 2 | 3 | 4 |

24) I like to be called on in class.

| | | | |
|-----------------|-----------|-------------|----------------------|
| (A lot like me) | (like me) | (unlike me) | (not like me at all) |
| 1 | 2 | 3 | 4 |

25) I understand myself.

| | | | |
|-----------------|-----------|-------------|----------------------|
| (A lot like me) | (like me) | (unlike me) | (not like me at all) |
| 1 | 2 | 3 | 4 |

26) It's pretty tough to be me.

| | | | |
|-----------------|-----------|-------------|----------------------|
| (A lot like me) | (like me) | (unlike me) | (not like me at all) |
| 1 | 2 | 3 | 4 |

27) Things are all mixed up in my life.

| | | | |
|-----------------|-----------|-------------|----------------------|
| (A lot like me) | (like me) | (unlike me) | (not like me at all) |
| 1 | 2 | 3 | 4 |

28) Kids usually follow my ideas.

| | | | |
|-----------------|-----------|-------------|----------------------|
| (A lot like me) | (like me) | (unlike me) | (not like me at all) |
| 1 | 2 | 3 | 4 |

29) No one pays much attention to me at home.

| | | | |
|-----------------|-----------|-------------|----------------------|
| (A lot like me) | (like me) | (unlike me) | (not like me at all) |
| 1 | 2 | 3 | 4 |

30) I'm not doing as well in school as I'd like to.

| | | | |
|-----------------|-----------|-------------|----------------------|
| (A lot like me) | (like me) | (unlike me) | (not like me at all) |
| 1 | 2 | 3 | 4 |

- 31) **I can make up my mind and stick to it.**
 (A lot like me) (like me) (unlike me) (not like me at all)
 1 2 3 4
- 32) **I really don't like being a boy/ a girl.**
 (A lot like me) (like me) (unlike me) (not like me at all)
 1 2 3 4
- 33) **I have a low opinion of myself.**
 (A lot like me) (like me) (unlike me) (not like me at all)
 1 2 3 4
- 34) **I don't like to be with other people.**
 (A lot like me) (like me) (unlike me) (not like me at all)
 1 2 3 4
- 35) **There are many times when I'd like to leave home.**
 (A lot like me) (like me) (unlike me) (not like me at all)
 1 2 3 4
- 36) **I often feel upset in school.**
 (A lot like me) (like me) (unlike me) (not like me at all)
 1 2 3 4
- 37) **I often feel ashamed of myself.**
 (A lot like me) (like me) (unlike me) (not like me at all)
 1 2 3 4
- 38) **I'm not as nice looking as most people.**
 (A lot like me) (like me) (unlike me) (not like me at all)
 1 2 3 4
- 39) **If I have something to say, I usually say it.**
 (A lot like me) (like me) (unlike me) (not like me at all)
 1 2 3 4
- 40) **Kids pick on me very often.**
 (A lot like me) (like me) (unlike me) (not like me at all)
 1 2 3 4
- 41) **My parents understand me.**
 (A lot like me) (like me) (unlike me) (not like me at all)
 1 2 3 4

42) My teacher makes me feel I'm not good enough.

| | | | |
|-----------------|-----------|-------------|----------------------|
| (A lot like me) | (like me) | (unlike me) | (not like me at all) |
| 1 | 2 | 3 | 4 |

43) I don't care what happens to me.

| | | | |
|-----------------|-----------|-------------|----------------------|
| (A lot like me) | (like me) | (unlike me) | (not like me at all) |
| 1 | 2 | 3 | 4 |

44) I'm a failure.

| | | | |
|-----------------|-----------|-------------|----------------------|
| (A lot like me) | (like me) | (unlike me) | (not like me at all) |
| 1 | 2 | 3 | 4 |

45) I get upset easily when I'm scolded.

| | | | |
|-----------------|-----------|-------------|----------------------|
| (A lot like me) | (like me) | (unlike me) | (not like me at all) |
| 1 | 2 | 3 | 4 |

46) Most people are better liked than I am.

| | | | |
|-----------------|-----------|-------------|----------------------|
| (A lot like me) | (like me) | (unlike me) | (not like me at all) |
| 1 | 2 | 3 | 4 |

47) I usually feel as if my parents are pushing me.

| | | | |
|-----------------|-----------|-------------|----------------------|
| (A lot like me) | (like me) | (unlike me) | (not like me at all) |
| 1 | 2 | 3 | 4 |

48) I often get discouraged in school.

| | | | |
|-----------------|-----------|-------------|----------------------|
| (A lot like me) | (like me) | (unlike me) | (not like me at all) |
| 1 | 2 | 3 | 4 |

49) Things usually don't bother me.

| | | | |
|-----------------|-----------|-------------|----------------------|
| (A lot like me) | (like me) | (unlike me) | (not like me at all) |
| 1 | 2 | 3 | 4 |

50) I can't be depended on.

| | | | |
|-----------------|-----------|-------------|----------------------|
| (A lot like me) | (like me) | (unlike me) | (not like me at all) |
| 1 | 2 | 3 | 4 |

Coopersmith Self-Esteem Inventory (SEI)

Rating Form

| Subscales | | | | | | | |
|------------------------|--------------|------------------------|--------------|------------------------|--------------|------------------------|--------------|
| Self | | Peers | | Parent | | School | |
| Item | Score | Item | Score | Item | Score | Item | Score |
| 1. | _____ | 4. | _____ | 5. | _____ | 6. | _____ |
| 2. | _____ | 10. | _____ | 11. | _____ | 12. | _____ |
| 3. | _____ | 16. | _____ | 17. | _____ | 18. | _____ |
| 7. | _____ | 22. | _____ | 23. | _____ | 24. | _____ |
| 8. | _____ | 28. | _____ | 29. | _____ | 30. | _____ |
| 9. | _____ | 34. | _____ | 35. | _____ | 36. | _____ |
| 13. | _____ | 40. | _____ | 41. | _____ | 42. | _____ |
| 14. | _____ | 46. | _____ | 47. | _____ | 48. | _____ |
| 15. | _____ | | | | | | |
| 19. | _____ | | | | | | |
| 20. | _____ | | | | | | |
| 21. | _____ | | | | | | |
| 25. | _____ | | | | | | |
| 26. | _____ | | | | | | |
| 27. | _____ | | | | | | |
| 31. | _____ | | | | | | |
| 32. | _____ | | | | | | |
| 33. | _____ | | | | | | |
| 37. | _____ | | | | | | |
| 38. | _____ | | | | | | |
| 39. | _____ | | | | | | |
| 43. | _____ | | | | | | |
| 44. | _____ | | | | | | |
| 45. | _____ | | | | | | |
| 49. | _____ | | | | | | |
| 50. | _____ | | | | | | |
| Sub-Total _____ | | Sub-Total _____ | | Sub-Total _____ | | Sub-Total _____ | |

Total Score: _____

APPENDIX VII*Duncan Socioeconomic Index - Revised (DSI-R)*

| | | |
|------|--------------------------------------|-------|
| 001) | Accountants SRM-SF scores) | 70.17 |
| 002) | Architects | 78.16 |
| | Computer Specialists | |
| 003) | Computer Programmers | 63.57 |
| 004) | Computers Systems Analysts | 75.39 |
| 005) | Computer Specialists, n.e.c. | 73.01 |
| | Engineers | |
| 006) | Aeronautical\Astronautical Engineers | 83.21 |
| 007) | Chemical Engineers | 85.39 |
| 008) | Civil Engineers | 75.33 |
| 009) | Electrical and electronic Engineers | 78.32 |
| 010) | Industrial Engineers | 71.62 |
| 011) | Mechanical Engineers | 76.21 |
| 012) | Metallurgical and material Engineers | 81.92 |
| 013) | Mining Engineers | 74.22 |
| 014) | Petroleum Engineers | 80.55 |
| 015) | Sales engineers | 77.08 |
| 016) | Engineers, n.e.c. | 75.27 |
| 017) | Farm management advisors | 77.74 |
| 018) | Foresters and conservationists | 47.48 |
| 019) | Home management advisors | 47.10 |
| 020) | Judges | 79.87 |
| 021) | Lawyers | 86.96 |
| | Librarians, archivists, curators | |
| 022) | Librarians | 65.23 |
| 023) | Archivists and Curators | 57.14 |
| | Mathematical Specialists | |
| 024) | Actuaries | 84.37 |
| 025) | Mathematicians | 84.33 |
| 026) | Statisticians | 71.45 |
| | Life and Physical Scientists | |
| 027) | Agricultural scientists | 62.73 |
| 028) | Atmospheric and space scientists | 77.70 |

| | | |
|------|--------------------------------------|-------|
| 029) | Biological Scientists | 76.95 |
| 030) | Chemists | 75.56 |
| 031) | Geologists | 85.59 |
| 032) | Marine Scientists | 80.72 |
| 033) | Physicists and astronomers | 85.16 |
| 034) | Life and Physical Scientists, n.e.c. | 81.72 |
| 035) | Researchers and Analysts | 65.28 |
| 036) | Personal and Labor Relations workers | 66.21 |
| | Physicians, Dentists etc., | |
| 037) | Chiropractors | 77.88 |
| 038) | Dentists | 88.49 |
| 039) | Optometrists | 84.16 |
| 040) | Pharmacists | 80.35 |
| 041) | Physicians, medical and osteopathic | 87.14 |
| 042) | Podiatrists | 81.94 |
| 043) | Veterinarians | 85.46 |
| 044) | Health Practitioners, n.e.c. | 67.90 |
| | Nurses, dietitians, therapists | |
| 045) | Dietitians | 39.56 |
| 046) | Registered Nurses | 46.62 |
| 047) | Therapists | 56.93 |
| | Health Technicians\Technologists | |
| 048) | Clinical Lab Technologists | 52.99 |
| 049) | Dental hygienists | 53.47 |
| 050) | Health record technologists | 53.47 |
| 051) | Radiologic technologists | 45.98 |
| 052) | Therapy assistants | 39.66 |
| 053) | Health Technologists, n.e.c. | 51.90 |
| | Religious workers | |
| 054) | Clergy | 62.10 |
| 055) | Religious workers, n.e.c. | 57.61 |
| | Social Scientists | |
| 056) | Economists | 81.02 |
| 057) | Political Scientists | 84.75 |
| 058) | Psychologists | 81.06 |
| 059) | Sociologists | 73.79 |
| 060) | Urban and regional planners | 77.21 |
| 061) | Social Scientists, n.e.c. | 73.51 |

| | | |
|------|--|-------|
| 062) | Social Workers | 64.39 |
| 063) | Recreational Workers | 52.30 |
| | Teachers, college and university | |
| 064) | Agriculture teachers | 82.58 |
| 065) | Atmospheric, earth, marine, space | 81.82 |
| 066) | Biology teachers | 81.67 |
| 067) | Chemistry teachers | 81.96 |
| 068) | Physics teachers | 80.41 |
| 069) | Engineering teachers | 83.30 |
| 070) | Mathematics teachers | 79.43 |
| 071) | Health specialties teachers | 86.63 |
| 072) | Psychology teachers | 84.20 |
| 073) | Business and commerce teachers | 83.03 |
| 074) | Economics teachers | 84.10 |
| 075) | History teachers | 80.04 |
| 076) | Sociology teachers | 79.15 |
| 077) | Social science teachers, n.e.c. | 82.13 |
| 078) | Art, drama and music teachers | 78.42 |
| 079) | Coaches and Phys. Ed. teachers | 78.57 |
| 080) | Education teachers | 85.34 |
| 081) | English teachers | 79.15 |
| 082) | Foreign language teachers | 77.74 |
| 083) | Home economics teachers | 74.84 |
| 084) | Law teachers | 88.65 |
| 085) | Theology teachers | 76.14 |
| 086) | Trade, industrial, technical | 66.90 |
| 087) | Miscellaneous teachers, college and university | 79.02 |
| 088) | Teachers, college and university, subject not specified | 75.22 |
| | Teachers, not college and university | |
| 089) | Adult education teachers | 59.33 |
| 090) | Elementary school teachers | 68.99 |
| 091) | Prekindergarten and kindergarten | 50.32 |
| 092) | Secondary school teachers | 73.02 |
| 093) | Teachers, not univ./college, n.e.c | 48.92 |
| | Engineering and science technicians | |
| 094) | Agriculture and biological technicians, except health | 37.65 |
| 095) | Chemical technicians | 45.71 |
| 096) | Draftspersons | 46.26 |

| | | |
|------|--|-------|
| 097) | Electrical/electronic technicians | 45.01 |
| 098) | Industrial engineering technicians | 43.46 |
| 099) | Mechanical engineering technicians | 49.95 |
| 100) | Mathematical technicians | 54.79 |
| 101) | Surveyors | 36.54 |
| 102) | Engineering and science technicians, n.e.c. | 43.47 |
| | Technicians, except health, and engineering and science | |
| 103) | Airplane pilots | 68.66 |
| 104) | Air traffic controllers | 52.62 |
| 105) | Embalmers | 52.12 |
| 106) | Flight engineers | 62.08 |
| 107) | Radio operators | 34.22 |
| 108) | Tool programmers, numerical control | 57.76 |
| 109) | Technicians, n.e.c. | 41.04 |
| 110) | Vocational and educational counsellors | 75.57 |
| | Writers, artists and entertainers | |
| 111) | Actors | 55.62 |
| 112) | Athletes and kindred workers | 43.06 |
| 113) | Authors | 70.34 |
| 114) | Dancers | 41.20 |
| 115) | Designers | 62.31 |
| 116) | Editors and reporters | 69.51 |
| 117) | Musicians and composers | 40.70 |
| 118) | Painters and sculptors | 54.58 |
| 119) | Photographers | 42.54 |
| 120) | Public relations and publicity writers | 69.09 |
| 121) | Radio and television announcers | 50.91 |
| 122) | Writers, artists, and entertainers, n.e.c. | 55.67 |
| 123) | Research workers, not specified | 71.28 |
| 124) | Professional, technical, and kindred workers, allocated | 56.71 |
| 125) | Assessors, controllers and treasurers, local public administration | 43.43 |
| 126) | Bank officers and financial managers | 66.48 |
| 127) | Buyers and shippers, farm products | 33.63 |
| 128) | Buyers, wholesale and retail trade | 48.70 |
| 129) | Credit persons | 56.60 |
| 130) | Funeral Directors | 58.33 |
| 131) | Health Administrators | 68.80 |

| | | |
|------|---|-------|
| 132) | Construction inspectors, public administration | 38.91 |
| 133) | Inspectors, except construction, public administration | 44.89 |
| 134) | Managers and superintendents, building | 40.74 |
| 135) | Office managers, n.e.c. | 56.34 |
| 136) | Officers, pilots, pursers; ship | 36.65 |
| 137) | Officials and administrators: public admin, n.e.c. | 59.78 |
| 138) | Officials of lodges, societies and unions | 53.17 |
| 139) | Postmasters and mail superintendents | 45.23 |
| 140) | Purchasing agents and buyers, n.e.c | 56.73 |
| 141) | Railroad conductors | 36.42 |
| 142) | Restaurant, cafeteria, and bar managers | 36.80 |
| 143) | Sales managers and department heads, retail trade | 45.36 |
| 144) | Sales managers, except retail trade | 69.25 |
| 145) | School administrators, college | 80.14 |
| 146) | School administrators, elementary and secondary | 84.98 |
| 147) | Managers and administrators, n.e.c. | 50.89 |
| 148) | Managers and administrators, except farm-allocated | 41.07 |
| 149) | Advertising agents and salespersons | 60.93 |
| 150) | Auctioneers | 35.94 |
| 151) | Demonstrators | 41.68 |
| 152) | Hucksters and peddlers | 32.79 |
| 153) | Insurance agents, brokers, and underwriters | 54.57 |
| 154) | Newsboys\girls | 16.43 |
| 155) | Real estate agents and brokers | 55.28 |
| 156) | Stock and bond salespersons | 72.53 |
| | Sales representatives | |
| 157) | Manufacturing industries | 58.50 |
| 158) | Wholesale trade | 47.30 |
| 159) | Salesclerks, retail trade | 35.17 |
| 160) | Salespersons of services and construction | 48.86 |

| | | |
|------|---|-------|
| 161) | Sales workers, allocated | 33.29 |
| 162) | Bank tellers | 33.46 |
| 163) | Billing clerks | 29.95 |
| 164) | Bookkeepers | 40.79 |
| 165) | Cashiers | 25.57 |
| 166) | Clerical assistants, social welfare | 42.35 |
| 167) | Clerical supervisors, n.e.c. | 54.16 |
| 168) | Collectors, bill and accounts | 36.28 |
| 169) | Counter clerks, except food | 29.10 |
| 170) | Dispatchers and starters, vehicle | 29.11 |
| 171) | Enumerators and interviewers | 44.26 |
| 172) | Estimators and investigators, n.e.c. | 53.82 |
| 173) | Expeditors and production controllers | 37.05 |
| 174) | File clerks | 28.30 |
| 175) | Insurance adjusters, examiners and investigators | 58.51 |
| 176) | Library attendants and assistants | 43.71 |
| 177) | Mail carriers, post office | 25.09 |
| 178) | Mail handlers, except post office | 25.50 |
| 179) | Messengers and office girls/boys | 20.46 |
| 180) | Meter readers, utilities | 20.84 |
| | Office machine operators | |
| 181) | Bookkeeping and billing machine operators | 35.39 |
| 182) | Calculating machine operators | 36.92 |
| 183) | Computer and peripheral equipment operators | 37.07 |
| 184) | Duplicating machine operators | 25.96 |
| 185) | Key punch operators | 32.15 |
| 186) | Tabulating machine operators | 30.27 |
| 187) | Office machine operators, n.e.c. | 26.29 |
| 188) | Payroll and timekeeping clerks | 33.41 |
| 189) | Postal clerks | 29.92 |
| 190) | Proofreaders | 43.71 |
| 191) | Real estate appraisers | 64.33 |
| 192) | Receptionists | 37.33 |

| | | |
|------|---|-------|
| | Secretaries | |
| 193) | Secretaries, legal | 47.79 |
| 194) | Secretaries, medical | 44.21 |
| 195) | Secretaries, n.e.c. | 45.99 |
| 196) | Shipping and receiving clerks | 19.49 |
| 197) | Statistical clerks | 37.25 |
| 198) | Stenographers | 50.66 |
| 199) | Stock clerks and storekeepers | 22.93 |
| 200) | Teacher aides, except school monitors | 40.85 |
| 201) | Telegraph messengers | 20.46 |
| 202) | Telegraph operators | 29.02 |
| 203) | Telephone operators | 33.98 |
| 204) | Ticket, station and express agents | 38.04 |
| 205) | Typists | 28.69 |
| 206) | Weighers | 19.15 |
| 207) | Miscellaneous clerical workers | 40.22 |
| 208) | Clerical workers, n.e.c. | 34.13 |
| 209) | Clerical and kindred workers allocated | 29.65 |
| 210) | Automobile accessories installers | 19.81 |
| 211) | Bakers | 18.48 |
| 212) | Blacksmiths | 19.35 |
| 213) | Boilermakers | 26.07 |
| 214) | Brickmasons and stonemasons | 22.14 |
| 215) | Brickmasons and stonemasons, apprentices | 21.51 |
| 216) | Bulldozer operators | 18.29 |
| 217) | Cabinetmakers | 19.04 |
| 218) | Carpenters | 21.43 |
| 219) | Carpenter apprentices | 17.74 |
| 220) | Carpet installers | 21.65 |
| 221) | Cement and concrete finishers | 20.08 |
| 222) | Compositors and typesetters | 28.11 |
| 223) | Printing trades apprentices, except pressmen | 18.34 |
| 224) | Crane, derrick and hoist operators | 21.80 |
| 225) | Decorators and window dressers | 33.18 |
| 226) | Dental laboratory technicians | 33.12 |
| 227) | Electricians | 31.94 |
| 228) | Electrician apprentices | 23.53 |
| 229) | Electric power line and cable workers | 28.94 |
| 230) | Electrotypers and stereotypers | 32.32 |
| 231) | Engravers, except photoengravers | 23.62 |
| 232) | Excavating, grading and road machine operators, except bulldozer | 21.16 |

| | | |
|------|---|-------|
| 233) | Floor layers except tile setters | 22.53 |
| 234) | Foremen, n.e.c. | 36.89 |
| 235) | Forge and hammer operators | 22.32 |
| 236) | Furniture and wood finishers | 18.59 |
| 237) | Furriers | 24.14 |
| 238) | Glaziers | 24.53 |
| 239) | Heat treaters, annealers and temperers | 21.44 |
| 240) | Inspectors, scalers and graders; log and lumber | 18.50 |
| 241) | Inspectors, n.e.c. | 30.28 |
| 242) | Jewellers and watchmakers | 25.49 |
| 243) | Job and die setters, metal | 22.68 |
| 244) | Locomotive engineers | 38.42 |
| 245) | Locomotive firemen | 31.36 |
| 246) | Machinists | 24.05 |
| 247) | Machinist apprentices | 20.27 |
| | Mechanics and repairpersons | |
| 248) | Air conditioning, heating, and refrigeration | 26.24 |
| 249) | Aircraft | 32.18 |
| 250) | Automobile body repairpersons | 20.52 |
| 251) | Automobile mechanics | 19.19 |
| 252) | Automobile mechanic apprentices | 14.59 |
| 253) | Data processing machine repair- persons | 48.70 |
| 254) | Farm implement | 17.36 |
| 255) | Heavy equipment mechanics, including diesel | 23.03 |
| 256) | Household appliance and accessory installers and mechanics | 22.50 |
| 257) | Loom fixers | 11.13 |
| 257) | Office machine | 27.90 |
| 258) | Radio and television | 27.54 |
| 259) | Railroad and car shop | 17.87 |
| 260) | Mechanic, except auto, apprentices | 24.43 |
| 261) | Miscellaneous mechanics and repairpersons | 24.96 |
| 262) | Mechanics and repairpersons, n.e.c. | 25.71 |
| 263) | Millers; grain, flour and feed | 16.77 |
| 264) | Millwrights | 29.17 |
| 265) | Molders, metal | 17.71 |

| | | |
|------|---|-------|
| 266) | Molder apprentices | 20.82 |
| 267) | Motion picture projectionists | 29.95 |
| 268) | Opticians, lens grinders and polishers | 30.28 |
| 269) | Painters, construction and maintenance | 18.58 |
| 270) | Painter apprentices | 15.38 |
| 271) | Paperhangers | 22.65 |
| 272) | Pattern and model makers, except paper | 33.74 |
| 273) | Photoengravers and lithographs | 37.66 |
| 274) | Piano and organ tuners and repairpersons | 30.11 |
| 275) | Plasterers | 20.92 |
| 276) | Plasterer apprentices | 17.92 |
| 277) | Plumber and pipefitters | 28.09 |
| 278) | Plumber and pipefitter apprentices | 21.44 |
| 279) | Power station operators | 34.65 |
| 280) | Presspersons and plate printers, printing | 26.16 |
| 281) | Pressperson apprentices | 19.97 |
| 282) | Rollers and finishers, metal | 25.16 |
| 283) | Roofers and slaters | 17.97 |
| 284) | Sheetmetal workers and tinsmiths | 26.54 |
| 285) | Sheetmetal apprentices | 19.66 |
| 286) | Shipfitters | 22.30 |
| 287) | Shoe repair persons | 15.50 |
| 288) | Sign painters and letterers | 23.72 |
| 289) | Stationary engineers | 28.08 |
| 290) | Stone cutters and stone carvers | 17.50 |
| 291) | Structural metal craftspersons | 29.06 |
| 292) | Tailors | 18.52 |
| 293) | Telephone installers and repairers | 32.46 |
| 294) | Telephone linespersons and splicers | 26.85 |
| 295) | Tile setters | 21.98 |
| 296) | Tool and die makers | 34.64 |
| 297) | Tool and die apprentices | 24.27 |
| 298) | Upholsterers | 16.23 |
| 299) | Specified craft apprentices, n.e.c. | 22.12 |
| 300) | Not specified apprentices | n/a |
| 301) | Craftspersons and kindred workers, n.e.c. | n/a |
| 302) | Craftspersons and kindred workers- allocated | 22.49 |
| 303) | Former members of Armed Forces | 28.21 |
| 304) | Asbestos and insulation workers | 29.22 |

| | | |
|------|---|-------|
| 305) | Assemblers | 17.57 |
| 306) | Blasters and powderers | 17.91 |
| 307) | Bottling and canning workers | 17.17 |
| 308) | Chain/rod/ax persons; surveying | 23.19 |
| 309) | Checkers, examiners, inspectors; manufacturing | 25.05 |
| 310) | Clothing ironers and pressers | 14.02 |
| 311) | Cutting operatives, n.e.c. | 16.56 |
| 312) | Dressmakers and seamers, except factory | 18.74 |
| 313) | Sewers and stitchers | 14.78 |
| 314) | Laundry and dry cleaning operatives, n.e.c. | 17.59 |
| 315) | Drillers, earth | 20.65 |
| 316) | Drywall installers and lathers | 23.65 |
| 317) | Dyers | 15.33 |
| 318) | Filers, polishers, sanders, buffers | 16.12 |
| 319) | Furnace and smelter workers | 19.56 |
| 320) | Garage workers and gas station attendants | 16.27 |
| 321) | Graders and sorters; manufacturing | 17.16 |
| 322) | Produce graders and packers, except factory and farm | 14.65 |
| 323) | Heaters, metal | 25.04 |
| 324) | Meat cutters and butchers, except manufacturing | 20.97 |
| 325) | Meat cutters and butchers; manufacturing | 18.48 |
| 326) | Meat wrappers, retail trade | 16.55 |
| 327) | Metal platers | 18.18 |
| 328) | Milliners | 21.96 |
| 329) | Mine operatives, n.e.c. | 18.16 |
| 330) | Mixing operatives | 17.19 |
| 331) | Oilers and greasers, except auto | 18.69 |
| 332) | Packers and wrappers, except meat and produce | 15.42 |
| 333) | Painters, manufactured articles | 16.33 |
| 334) | Photographic process workers | 31.90 |
| | Precision machine operatives | |
| 335) | Drill press operatives | 17.10 |
| 336) | Grinding machine operatives | 20.82 |
| 337) | Lathe and milling operatives | 21.28 |
| 338) | Precision machine operatives, n.e.c. | 22.24 |

| | | |
|------|---|-------|
| 339) | Punch and stamping press operatives | 17.07 |
| 340) | Riveters and fasteners | 14.16 |
| 341) | Sailors and deckhands | 19.91 |
| 342) | Sawyers | 13.80 |
| 343) | Shoemaking machine operatives | 11.83 |
| 344) | Solderers | 16.63 |
| 345) | Stationary firemen | 20.32 |
| | Textile operatives | |
| 346) | Carding, lapping and combing operatives | 11.44 |
| 347) | Knitters, loopers and toppers | 14.92 |
| 348) | Spinners, twistors and winders | 11.80 |
| 349) | Weavers | 11.62 |
| 350) | Textile operatives, n.e.c. | 12.67 |
| 351) | Welders and flame cutters | 19.76 |
| 352) | Winding operatives, n.e.c. | 18.32 |
| 353) | Machine operatives, miscellaneous specified | 18.43 |
| 354) | Machine operatives, n.e.c. | 18.00 |
| 355) | Miscellaneous operatives | 18.34 |
| 356) | Not specified operatives | 18.93 |
| 357) | Operatives, except transport- allocated | 18.01 |
| 358) | Boat and canal workers | 22.02 |
| 359) | Bus drivers | 21.16 |
| 360) | Conductors and motor workers, urban rail transit | 24.60 |
| 361) | Delivery and route persons | 21.19 |
| 362) | Forklift and tow motor operatives | 15.65 |
| 363) | Motor persons: mine, factory, logging camp, etc. | 16.46 |
| 364) | Parking attendants | 19.17 |
| 365) | Railroad brake persons | 27.84 |
| 366) | Railroad switchers | 23.86 |
| 367) | Taxicab drivers and chauffeurs | 19.44 |
| 368) | Truck drivers | 20.09 |
| 369) | Transport equipment operatives, allocated | 17.94 |
| 370) | Animal caretakers, except farm | 19.25 |
| 371) | Carpenters' helpers | 14.74 |
| 372) | Construction labourers, except carpenters' helpers | 15.90 |

| | | |
|------|---|-------|
| 373) | Fish and oyster catchers | 18.90 |
| 374) | Freight and material handlers | 17.02 |
| 375) | Garbage collectors | 15.03 |
| 376) | Gardeners and groundskeepers, except farm | 16.06 |
| 377) | Longshoremen and stevedores | 21.80 |
| 378) | Lumbermen, raftspersons and wood choppers | 15.36 |
| 379) | Stock handlers | 16.99 |
| 380) | Teamsters | 15.47 |
| 381) | Vehicle washers and equipment cleaners | 14.28 |
| 382) | Warehouse workers, n.e.c. | 18.98 |
| 383) | Miscellaneous labourers | 15.08 |
| 384) | Not specified labourers | 14.84 |
| 385) | Labourers, except farm-allocated | 16.37 |
| 386) | Farmers (owners and tenants) | 22.19 |
| 387) | Farm managers | 31.92 |
| 388) | Farmers and farm managers, allocated | 21.60 |
| 389) | Farm foremen | 22.62 |
| 390) | Farm labourers, wage workers | 13.79 |
| 391) | Farm labourers, unpaid family workers | 15.54 |
| 392) | Farm service labourers, self- employed | 20.46 |
| 393) | Farm labourers and farm fore- men, allocated | 14.41 |
| | Cleaning service workers | |
| 394) | Chambermaids and maids, except private household | 15.74 |
| 395) | Cleaners and charpersons | 14.52 |
| 396) | Janitors | 15.80 |
| | Food service workers | |
| 397) | Bartenders | 22.71 |
| 398) | Buspersons | 15.23 |
| 399) | Cooks, except private household | 18.06 |
| 400) | Dishwashers | 16.35 |
| 401) | Food counter and fountain workers | 18.52 |
| 402) | Waiters and waitresses | 22.38 |
| 403) | Food service workers, n.e.c., except private household | 17.55 |

| | | |
|------|---|-------|
| | Health service workers | |
| 404) | Dental assistants | 34.22 |
| 405) | Health aids, except nursing | 27.11 |
| 406) | Health trainees | 33.95 |
| 407) | Lay midwives | 28.54 |
| 408) | Nursing aids, orderlies and attendants | 21.09 |
| 409) | Practical nurses | 24.20 |
| | Personal service workers | |
| 410) | Attendants, recreation and amusement | 24.89 |
| 411) | Attendants, personal service, n.e.c. | 23.37 |
| 412) | Baggage porters and bellhops | 19.25 |
| 413) | Barbers | 18.19 |
| 414) | Boarding and lodging house | 31.16 |
| 415) | Bootblacks | 11.56 |
| 416) | Childcare workers, except private household | 24.40 |
| 417) | Childcare workers, private household | 13.09 |
| 418) | Cooks, private household | 16.93 |
| 419) | Housekeepers, private household | 16.51 |
| 420) | Launderers, private household | 19.31 |
| 421) | Maids and servants, private household | 13.44 |
| 422) | Private household workers-allocated | 13.35 |
| 423) | Elevator operators | 14.23 |
| 424) | Flight attendants | 35.17 |
| 425) | Hairdressers and cosmetologists | 26.91 |
| 426) | Personal service apprentices | 13.18 |
| 427) | Housekeepers, except private household | 35.54 |
| 428) | School monitors | 35.67 |
| 429) | Ushers, recreation and amusement | 16.97 |
| 430) | Welfare service aides | 36.60 |
| | Protective service workers | |
| 431) | Crossing guards and bridge tenders | 14.72 |
| 432) | Firemen, fire protection | 32.73 |
| 433) | Guards and watchkeepers | 21.05 |
| 434) | Marshals and constables | 31.38 |
| 435) | Policepersons and detectives | 37.07 |
| 436) | Sheriffs and bailiffs | 31.02 |

VITA

Surname: Van Domselaar

Given Names: Theresa Anne

Place of Birth: Edmonton, Alberta

Date of Birth: September 26, 1966

Educational Institutions Attended:

| | |
|------------------------|--------------|
| University of Victoria | 1991 to 1993 |
| University of Victoria | 1986 to 1989 |
| The King's College | 1984 to 1986 |

Degrees Awarded:

B.A. (Honours) University of Victoria 1989

Honours and Awards:

British Columbia Government Scholarship 1986-88

Professional Membership:


Student Affiliate of the American Psychological Association

PARTIAL COPYRIGHT LICENCE

I hereby grant the right to lend my thesis to users of the University of Victoria Library, and to make single copies only for such users or in response to a request from the Library of any other university, or similar institution, on its behalf or for one of its users. I further agree that permission for extensive copying of this thesis for scholarly purposes may be granted by me or a member of the University designated by me. It is understood that copying or publication of this thesis for financial gain shall not be allowed without my written permission.

Title of Thesis: Moral Maturity and Self-Esteem as Predictors of Problem Behaviour in Children.

Author


(Signature)

THERESA VAN DOMSELAAR

(Name in Block Letters)

September 13, 1993

(Date)