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Correlates of Behaviour Problems in
Latency Age Children of Divorce

by

Joan Alfreda Lawrence

A thesis
presented to the University of Manitoba
in fulfillment of the
thesis requirement for the degree of
Doctor of Philosophy
in
Department of Psychology

Winnipeg, Manitoba

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IN LATENCY AGE CHILDREN OF DIVORCE

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JOAN ALFREDA LAWRENCE

A thesis submitted to the Faculty of Graduate Studies of
the University of Manitoba in partial fulfillment of the requirements
of the degree of

DOCTOR OF PHILOSOPHY

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ABSTRACT

Recent investigations examining childrens' adjustment subsequent to parental divorce have demonstrated that children of divorce, particularly boys, exhibit more adjustment problems than do children from intact or widowed homes. The present study attempted to systematically replicate previous findings using a design which simultaneously controlled for age and sex of child, parental marital status, SES, and elapsed time since parental separation. The behaviour and environment of a non-clinical sample of 324 latency age children of intact versus divorced families were evaluated with maternal report on the Child Behaviour Checklist, the Family Environment Scale, the Attitudes Towards Women Scale, and a Demographic Data Questionnaire. Multivariate analyses tested the following hypotheses: i) children of divorce are more disturbed than children of intact families, ii) male children of divorce are more disturbed than females, iii) specific environmental stressors are predictive of adjustment in children of divorce, and iv) male children of divorce experience more environmental stress than females. The first and third hypotheses were supported outright, and the fourth was reconceptualized as a general deficit in the quality of interpersonal relationships in the families of male children of divorce as compared to females'. A non-significant tendency for boys from both family structures to exhibit more behaviour problems than girls was observed. Specific environmental factors were found to be predictive of behaviour problems for each group of children, and environmental factors reflecting quality of interpersonal relationships differentiated children

from intact versus divorced homes, and male versus female children of divorce.

CONTENTS

ACKNOWLEDGEMENTS	iv
ABSTRACT	v

	<u>page</u>
INTRODUCTION	1
Problems in Definition	6
Sex Differences in Adjustment	11
Emotional Adjustment	12
Long Term Effects	32
Sex Differences in Response to Parental Absence	36
Emotional and Social Adjustment	39
Cognitive Development	45
Custody Type	51
Sex Differences in Stress and Coping	56
Environmental Conflict and Adjustment	57
Coping Strategies	59
Theoretical Explanations of Sex Differences	63
Environmental Stress	64
Developmental Vulnerability	70
Conclusion: The State of the Art	74
The Present Study	80
Hypotheses	81
METHOD	83
Subjects	83
Materials	86
Design	91
Procedure	91
RESULTS	93
DISCUSSION	102
Environmental Predictors	106
Control	106
Custody Type	111
Conflict	115
Cohesiveness	117
Traditionality/Liberalism	119
Uniqueness of Predictors	122
Environmental Factors Differentiating Groups	124
Discrimination among all groups	124

Discrimination between male and female children of divorce	127
Theoretical Implications	129
Clinical Implications	137
Future Directions	139

REFERENCES	141
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<u>Appendix</u>	<u>page</u>
A. QUESTIONNAIRE PACKAGE	156
B. INSTRUCTIONS TO RECEPTIONISTS	178

LIST OF TABLES

<u>Table</u>	<u>page</u>
1. Breakdown of Rejected Protocols	85
2. Mean Group Child Behaviour Checklist T scores*	93
3. Mean Environmental Variable Raw Scores by Group	95
4. Regression of Environmental Predictors Against Child Behaviour Checklist Scores - Male Divorced	96
5. Regression of Environmental Predictors Against Child Behaviour Checklist Scores - Female Divorced	96
6. Regression of Environmental Predictors Against Child Behaviour Checklist Scores - Male Intact	97
7. Regression of Environmental Predictors Against Child Behaviour Checklist Scores - Female Intact	98
8. Standardized Discriminant Coefficients for Function Discriminating Children by Sex and Parental Marital Status	99
9. Discriminant Classification Results (percent)	100
10. Standardized Discriminant Coefficients for Function Discriminating Male from Female Children of Divorce	101
11. Discriminant Classification Results (percent)	101

INTRODUCTION

Within the past two decades, divorce rates have increased dramatically, almost doubling since 1970 (Statistics Canada, 1975, 1985). Marital and family rupture has become a fact of life; a child living in Canada today faces about a 30% chance of experiencing parental separation and/or divorce at some time before he or she reaches the age of eighteen.

As the divorce rate increases, greater numbers of children are being exposed to the turmoil and upheaval consequent upon a radical change in family structure. Kurdek (1981) and Clingempeel and Reppucci (1982) noted that divorce causes many changes to occur in the child's life at the individual, micro-systemic, and macro-systemic levels. Foremost of these changes is the transition from a two parent to a single parent home, with the resultant realignment of the child's relationships with both parents. While the child may become more dependent on the custodial parent (Rutter, 1979a), frequency and quality of contact with the non-custodial parent almost inevitably decrease, and the child may be placed in a position where he or she experiences conflicting loyalties to each parent.

As relationships within the family alter, so do the child's interactions with his or her extra-familial environment. Divorce often results in moving from one home to another, thereby initiating a change in schools for the child, and a loss of established social supports including friends and teachers. With such a move comes pressure to establish new relationships; the child in the midst of family disruption may simply not have the

emotional resources to negotiate this transition. Other supports in the form of relationships with relatives, especially relatives of the non-custodial parent, may disappear. Finally, divorce may bring changes in socioeconomic status and concomitant change, often reduction, in quality of lifestyle.

In view of the array of potential negative stressors involved in the divorce process, children of divorce have been targeted as a population at risk for psychological disturbance. A multitude of divorce related social, emotional, behavioural, and academic problems in the children of failed unions have been documented (Atkeson, Forehand, & Rickard, 1982; Hetherington, 1979; Wallerstein & Kelly, 1980). Children of divorce have consistently been found to have more frequent and more severe problems with aggressiveness, non-compliance, pro-social behaviour, academic performance, affective disorders, and somatic complaints than do their peers from intact families. Furthermore, they are overrepresented in clinical psychiatric populations (Kalter, 1977; Kalter & Rembar, 1981).

While the research has indicated that the negative effects of divorce on children are multidimensional in nature, it has also shown that the degree to which the child successfully assimilates and adapts to divorce related changes depends on a number of factors, most notably age and sex of child, socioeconomic status of custodial family, and time elapsed since parental separation. Unfortunately, confounding of these factors in much of the existing research weakens conclusions which might be drawn about the effects of parental divorce on children. Furthermore, few investigators have attempted to determine the mechanisms by which age, sex, socioeconomic status, and time since parental split mediate the effects of divorce. This

is a critical oversight insofar as identification of these mechanisms may be of major importance in understanding the negative effects of family rupture on children, and in planning intervention strategies aimed at minimizing these effects.

Perhaps one of the most poorly understood mediators of children's post-divorce adjustment is the effect of sex of child. An overview of the existing literature pertaining to the effects of parental separation on children reveals a consistent trend for boys to be more adversely affected for longer periods of time than are girls (Guidubaldi & Perry, 1984; Hetherington, Cox, & Cox, 1979, 1982, 1985). This effect is particularly evident in latency age children; boys from divorced homes who are between the ages of 6 and 12 years display more aggression, antisocial behaviour, cognitive immaturity, and academic problems than do female age cohorts, male children of other ages, or children from intact or widowed families (Gudiubaldi, Cleminshaw, Perry & McLoughlin, 1983; Tuckman & Regan, 1966). However, much of the evidence for the conclusion that male children are more adversely affected by parental divorce than girls has been based on anecdotal observation, on data which was collected as a small part of a larger study of the general impact of divorce, or on methodologically unsound investigations. Observed sex differences have been treated largely as a curiosity, and little research has been specifically directed at demonstration and explanation of the phenomenon. Ironically, even though sex of child may prove to be important in mediating the effects of parental divorce, it has been treated with an almost laissez faire attitude, and the existing research on the topic lacks credibility.

Hypotheses implicating both intrapersonal and environmental factors in the child's life have been proposed to account for child adjustment problems associated with parental divorce, and for the apparent greater negative effect on male children. Hetherington (1979) postulated that children of divorce are exposed to a variety of environmental changes which contribute significant additional stresses to the normal process of growing up. The presence of these stressors is thought to be sufficiently disruptive to the child to cause multidimensional adjustment problems. Hetherington explains the observed sex differences by arguing that male children of divorce experience more negative stress than do their female counterparts, and are, therefore, more likely to display more frequent and more severe problems than do girls. Hetherington's model appears to be based on the not entirely justified premise that a direct causal relationship exists between degree of environmental stress engendered by parental divorce and degree of adjustment disturbance observed in the child. As shall be argued later, the quasi-experimental nature of the research supporting Hetherington's hypothesis suggests that a causal inference of the type underlying her model is unwarranted.

Wallerstein and Kelly (1980), meanwhile, have asserted that adjustment problems in children of divorce are caused by intrapersonal factors such as age. Specifically, they argued that cognitive immaturity in the latency age child renders that child more vulnerable to the stressors related to parental divorce. In order to explain observed sex differences in adjustment, Wallerstein and Kelly suggested that latency age boys are developmentally more vulnerable than girls. While this hypothesis accounts for the observed greater effects of divorce on latency age children,

particularly boys, it has little empirical support. In fact, neither Hetherington's (1979) nor Wallerstein and Kelly's (1980) causal models has been empirically tested.

In summary, the literature demonstrating sex differences in adjustment of children of divorce is fragmented and, as will be shown later, is plagued with methodological flaws and empirically tenuous explanatory models. There has been little attempt to empirically develop and test causal models, and much of the relevant research yields only descriptive, atheoretical conclusions. These flaws make it very difficult to develop an overall conceptual framework through which parental divorce may be related to child adjustment disturbance. The present review will address some of the problems in the existing literature by critically examining the relevant research. Prior to consideration of the research, it will be necessary to discuss and clarify some confusion arising from the pervasive use of ambiguous terminology in the literature. The remainder of the review will examine studies which demonstrate sex differences in the social and emotional adjustment of children of divorce, the relevant "parental absence" literature, and the literature on how children cope with the stresses involved in divorce. The first of these sections will provide an overview of the current status of the research documenting both detrimental effects of parental divorce on children and gender differences in children's post-divorce adjustment. The second section will examine the portions of the "parent absence" literature which have compared the effects of different types of home environment on children's adjustment and which have indicated that sex differences exist in children's reactions to different types of homes. The third section will focus on differences in

the ways that boys and girls experience and cope with divorce related stressors. Following the review of the literature, the development of and empirical support for Hetherington's environmental stress model and Wallerstein and Kelly's developmental vulnerability hypothesis will be critically examined.

The last portion of this paper will describe a study which i) focussed directly on the issue of sex differences in children's adjustment to parental divorce, ii) performed systematic, well controlled replication of the previous findings that latency age children of divorce, particularly boys, exhibit more behaviour problems than do their counterparts from intact families, iii) tested Hetherington's general hypothesis that environmental stressors are predictive of level of adjustment in children of divorce, and iv) tested Hetherington's corollary hypothesis that male children of divorce experience more environmental stressors than do their female cohorts.

Problems in Definition

One of the most pervasive problems in the research evaluating the relationship of parental separation and divorce to childrens' adjustment problems has concerned operational definitions of terms such as 'emotional adjustment', 'latency', 'separation', 'divorce', and 'parental absence'. Variability in the use of these terms, and inexact or absent specification of operational definitions and evaluation criteria has resulted in widespread inconsistency and lack of comparability within the literature.

Foremost among the definitional problems is the lack of a consistent and valid criterion variable to represent the construct of emotional adjustment. Most studies have examined emotional adjustment as an index of the impact of parental split on children. However, a single operational definition of the construct has eluded investigators, and close scrutiny of the relevant research reveals that there exist almost as many definitions of emotional adjustment as there exist studies in the area. Broadly speaking, the criterion variables representing emotional adjustment in past research have tended to fall into five major categories - i) behavioural deviance including acting out, aggression, non-compliance, and antisocial behaviour, ii) intrapsychic maladjustment including anxiety and affective disturbance, iii) cognitive immaturity with respect to moral development, iv) social interpersonal difficulties which include elements of the previous three categories and, v) psychophysiological symptoms. Occasionally, the presence of psychiatric diagnosis has been included as a definitional criterion for divorce related emotional disturbance. However, most researchers have recognized that a psychiatrically clinical population constitutes a relatively small proportion of the target group of children, and that, in many of these cases, psychopathology cannot be directly attributed to parental divorce, since pre-divorce indices of adjustment are rarely available. Consequently, conclusions based on data obtained from a clinical sample cannot be widely generalized to the population of children of divorce who do not present at psychiatric clinics.

The definitional problem underlying the emotional adjustment research is twofold. First, the construct of emotional adjustment is inadequately defined, since there are no universally agreed upon criteria which can be

said to be representative of the construct. As a result, the term emotional adjustment serves as an umbrella for a variety of behaviours which vary according to the individual researcher's idiosyncratic operational definition. In light of the difficulty in obtaining a consensus of opinion on operational definitions for abstract multidimensional constructs, it is unlikely that this problem will be easily resolved.

A second difficulty arises from ambiguous use of terminology, particularly the use of the label emotional adjustment in the absence of a statement of what that term referred to in the study being reported. In and of itself, the use of the term emotional adjustment to denote a specific adjustment behaviour or constellation of behaviours is not a problem, provided that the behaviours and the methods used to assess them are adequately described. When researchers fail to specify the criteria used to assess the behaviour in question, the reader is left wondering what behaviours were evaluated, how, and with what result. Furthermore, sweeping generalizations in the use of the label emotional adjustment lead to needless inconsistencies within the literature. Two studies may draw diametrically opposed conclusions about the effects of divorce on emotional adjustment, when in reality they have examined completely different criterion variables representing different facets of the construct. The problem is further complicated by the fact that the children of divorce literature spans the disciplines of medicine, psychology, social work, family studies, and law, all of which have their own idiosyncratic definitions of 'emotional adjustment'. Critical comparison across such a diverse body of literature is difficult.

A similar problem exists with respect to the use of the term 'latency age' to define a particular population of children who appear to be more adversely affected by parental divorce than children of other ages. Within the literature, there is considerable confusion about the defining boundaries of the latency stage. Children described as latency age have ranged in age from 5 to 12 years, but the limits for the latency stage have been inconsistent between studies. Furthermore, researchers have subdivided the latency stage into early, mid, and late latency, but have frequently failed to specify the points of demarcation between the substages. Such inconsistency and lack of specificity makes comparison of different studies within the literature extremely difficult.

Definitional problems also exist with the use of the terms separation, divorce, and parental absence. Frequently, reasons for parental separation and parental absence are unspecified; as shall be argued later, differing reasons for parental split (eg. divorce, death, illness) may have differential effects on the children involved, so it is necessary to make these parameters explicit in research reports. The terms separation and divorce are often equated and used interchangeably, when in reality they address two different concepts. Divorce is a legal construct obviously involving, but not necessarily equal to, marital separation. The discrepancy between the two constructs is particularly evident when temporal factors are considered; by and large, divorce cannot occur until after a relatively long period of informal and legal separation of the litigants. Given the vast number of potential micro-level and macro-level personal and environmental changes which could occur in the lives of both parents and children during the interval between initial separation and

divorce, it is logically and practically impossible to equate the two terms.

Lack of specificity is also evident in descriptive discussions of the behaviour of children of divorce and of the environmental factors impacting on them. Frequently, behaviour or environmental factors are assessed solely on the basis of the observations of potentially biased persons, particularly individual divorced parents. These parents' perceptions of the children's behaviour and environment may be distorted by their own needs and feelings related to the divorce. Indeed, Chethik, Dolin, Davies, Lohr, and Darrow (1987) make the argument that divorcing spouses may attribute to their children the negative characteristics of their ex-partner ("He's just like his father!") in an attempt to cope with their own feelings about the divorce. The child may or may not internalize these characteristics, but the parental distortion of the child's behaviour remains and may contaminate data obtained from this parent's observations. Kurdek and Berg (1987) found that parents' and teachers' ratings of internalizing or externalizing child behaviour problems were completely unrelated to the children's beliefs about the divorce, thus suggesting that parents' inferences about the intrapsychic processes underlying child behaviour may not accurately reflect what is really going on for the child. As long as this potential bias is accounted for methodologically, or there is recognition of the limits which it places on conclusions, it can be relatively benign. Problems arise when parental observations are treated as though they are objective; the researcher and the reader should beware of the assumption that unsubstantiated parental assessment reflects the true state of affairs in the child's life.

The most expedient solution to the problem of reporter bias appears to be recognition of the lack of comparability within the existing literature, and insistence on specificity of terminology and of source of information in future research. In the meantime, problems in definition must be kept in mind while reading and reviewing reported research.

Sex Differences in Adjustment

A major thrust of the children of divorce research has been the demonstration that divorce has detrimental effects on various facets of emotional adjustment of the children involved. Although much of the literature is plagued with methodological flaws (eg. absence of comparison groups) and the entire area suffers from construct validity problems with respect to a definition for the term emotional adjustment, there remains little doubt that parental divorce is consistently associated with social, affective, and behavioural disturbance in children. The finding that children of divorce exhibit more problems than do children from intact or even widowed families on a wide variety of indices of social, behavioural and academic adjustment, and on measures of physical and mental health has been replicated on numerous occasions (Guidubaldi et al., 1983; Hetherington, Cox, & Cox, 1978). A consistent theme throughout most reports of studies of the emotional adjustment of children of divorce, regardless of the methodological quality of the research or of whether the results were qualitative or quantitative, has been the tangential finding that male children appear to be more adversely affected than their female cohorts. The first section of this paper will examine the behavioural and temporal parameters of this phenomenon.

Emotional Adjustment

In one of the earliest examinations of the effects of parental separation on children, Rutter (1971) reported some evidence for a differential impact on boys and girls. In a sample of 290 families in which at least one parent was absent due to in-patient psychiatric care, it was found that the number of deviant male children varied directly with the number of marriages assessed as distressed, and within that group, deviance of child was a function of amount of marital discord in the environment. In contrast, there was no evidence for a relationship between marital discord and social deviance in female children. Rutter also noticed that boys were significantly overrepresented in the subsample of children who were considered clinically deviant. The tentative conclusion drawn from these results suggested that boys were more adversely affected by parental separation than were girls.

However, neither Rutter's results nor his conclusions were unequivocal. The fact that boys were more frequently found in the subgroup of children who were clinically deviant does not necessarily lead to the conclusion that parental separation has more severe effects on boys than on girls. It has long been known that males are commonly overrepresented in clinical populations (Gilbert, 1957; Roach, Gurrslin, & Hunt, 1958), although the reason for this phenomenon had never been entirely clarified. In view of the significantly higher proportion of males typically found in clinical populations, there is no reason to suspect that the parental separation experienced by Rutter's subjects was solely responsible for the higher numbers of males than females considered deviant.

Furthermore, Rutter's operational definition of social deviance was limited to antisocial behaviour, but sex role socialization processes encourage male children to express distress in terms of antisocial and aggressive behaviours, while girls are conditioned to display affective and somatic symptomatology (Biller, 1969; Serbin, 1980). Consequently, it may be argued that Rutter's measures were biased in such a manner as to detect boys' rather than girls' deviance.

Sampling problems also have multiple implications for both the internal validity and the external validity of the investigation. Recall that the children in Rutter's sample were from homes where parental absence was the result of a psychiatric condition serious enough to warrant in-patient treatment. A recent study of the psychological adjustment of divorced parents by Steinman, Zimmelman, and Knoblauch (1985) has pointed to a direct correlation between child behaviour problems and parental psychopathology, thereby suggesting that parental disturbance is conducive to deviance in other family members. This suggests that deviance observed in the children sampled by Rutter may have been the result of an inherently dysfunctional environment, rather than of the parental separation per se. Consequently, Rutter's sample cannot be considered to be representative of the population of children whose parents separate for reasons other than psychiatric illness. Also, in view of concordance research suggesting genetic transmission of some psychiatric disorders (Rosenthal, 1970), the possibility exists that the children in Rutter's sample were deviant due to some organic factor prior to the parental separation. In short, parental separation was inextricably confounded with psychiatric deviance of one or both parents. No firm conclusions about the effects of either factor on the children may be drawn.

Finally, some of the children who participated in Rutter's study were sufficiently disturbed as to be considered clinically deviant. There is recent evidence to indicate that children from clinical populations react differently to separation and its sequelae than do children from non-clinical populations (Bray & Anderson, 1984; Walker, Rogers, & Messinger, 1977). Generalization of Rutter's results to non-clinical separation groups is, therefore, contraindicated.

McDermott's (1968) observations of a non-clinical sample of children of divorce aged 3 to 5 years revealed that boys consistently appeared more disturbed than girls according to teachers' anecdotal reports of personality characteristics, play interactions, and interpersonal relationships. Additionally, boys demonstrated angry outbursts which were not characteristic of female children. McDermott acknowledged that the weaknesses of his study included unsystematic collection of data, no follow up, small sample size, and no intact family comparison group. However, since these data were collected tangentially to the study of an unrelated hypothesis, it is not expected that they would have been subject to rigorous experimental controls. Their primary utility lies in their serving as a starting point for later systematic study of the effects of divorce on children.

In a landmark series of studies completed as part of the California Children of Divorce Project, Wallerstein and Kelly have amassed an immense amount of information regarding the immediate and long term impact of separation and divorce on children (Kelly & Wallerstein, 1976; Wallerstein, 1984, 1985, 1987; Wallerstein & Kelly, 1975, 1976, 1980). Much of their published work is descriptive in nature and provides an excellent

longitudinal qualitative overview of the real life sequelae of divorce. However, this approach offers little in the way of solid empirical support for the authors' developmental vulnerability hypothesis which purports to explain sex differences in adjustment of children of divorce.

Wallerstein and Kelly (1975) reported an extensive descriptive study of the responses to divorce of a non-clinical sample of 34 preschoolers ranging in age from 2 1/2 to 5 years. Observations of the children and semi-structured unstandardized interviews with them, as well as interviews with parents and teachers have indicated that all subjects experienced increased anxiety, acting out behaviour, and affective disturbance subsequent to parental divorce. No sex differences were noted for this age group, although there were qualitative differences in behavioural response to divorce across age. At a one year follow up, the adjustment of 63% of girls in the age range 3 3/4 to 5 years had deteriorated, while only 27% of boys in the same age range had worsened. This finding would tend to suggest that, in the long run, parental divorce may be more detrimental to female children.

In an attempt to follow up and expand upon their earlier study, Kelly and Wallerstein examined the reactions to parental divorce of 26 children in early latency (ages 7 and 8) and 31 late latency (9 and 10 year old) children (Kelly & Wallerstein, 1976; Wallerstein & Kelly, 1976). Clinical interviews with parents and children revealed that the younger boys expressed more anger, loyalty to father, and wishes for parental reconciliation than did female age cohorts. Gender differences were not observed in the group of late latency aged children. Over the entire age range assessed, boys stated more need for parental (particularly paternal)

discipline than did girls, thereby leading the authors to conclude that latency age boys have a higher need for same sex role models than do females, and that boys have a greater intrapsychic fear of spending time alone with the opposite sex (Oedipal) parent. No empirical or theoretical evidence was presented to support these conclusions.

Finally, Wallerstein (1984, 1985, 1987) reported the results of ten year follow ups of the children included in the original sample. At the time of the most recent assessments, the 'children' ranged in age from 12 1/2 to 29 years. Unstandardized self report by all participants indicated that significant anxiety about relationships and feelings of sadness, resentment and "parental deprivation" had persisted throughout the years. Most sex differences with respect to affective disturbance were reported to have largely disappeared by adolescence. However, boys in mid to late adolescence continued to express a much stronger need for the absent father than did girls. In early adulthood, female respondents expressed somewhat more anxiety about the possibility of the occurrence of unhappy or broken relationships in their futures than did male subjects. Apparently, the passage of time had ameliorated many of the more pathological responses to parental divorce. The mechanism of this lessening of symptomatology was not clear and was not addressed within the parameters of the investigation. Potential explanations could include changes in cognitive maturity, changes in social supports, and changes in environment.

While the studies of Kelly and Wallerstein are clinically valid and provide an impressive amount of descriptive information, their empirical validity is dubious. No attempt was made to control for elapsed time since parental separation or for remarriage of custodial parent. Both factors

have been shown to be influential in mediating childrens' responses to parental separation and divorce (Hetherington et al., 1979; Kalter, 1977; McDermott, 1968; Santrock, Warshak, & Elliot, 1982). Furthermore, no comparison group of children from intact families was included in the study, thus rendering the results open to alternative explanations. In the absence of an intact family comparison group, it is impossible to determine if the observed difficulties of the children of divorce were unique to that population or if they are common to all children in the age groups studied by Kelly and Wallerstein. Another problem concerns the fact that the authors neglected to specify their criteria for evaluation of the participants' 'emotional adjustment'. Consequently, the results have little construct validity. Furthermore, since no pre-divorce measures of behaviour were available, it is reasonable to argue that the disturbed behaviour exhibited by the children may have been a long standing problem, existing prior to the parental divorce. Under these circumstances, the conclusion that the change in family structure caused the observed behaviour problems must be considered speculative.

Internal validity and reliability were also suspect, since all information on which the authors' conclusions were based was obtained through the subjective reports of parents and teachers and on observational data which was qualitative rather than quantitative. The argument that this data may have been contaminated by selective memory and biases is consistent with the findings of Santrock and Tracy (1978) which indicated that parental divorce results in teachers' and parents' stereotyping of the child as emotionally maladjusted. If any indices of reliability of data were used, they were not reported.

There were also significant problems with Kelly and Wallerstein's subject sample. The sample size was relatively small and independence of observations was severely compromised by the fact that the 131 children studied came from only 60 families. Generalizeability of the results was, therefore, limited. Finally, Kelly and Wallerstein asserted that their subject sample was drawn from a non-clinical population. Superficially this appears to be true, but closer examination of the sample reveals that the children were selected from a community mental health clinic to which they had been referred for preventative counseling. Referral sources included parents, lawyers, juvenile authorities, and other community agencies. It can be justifiably argued that the children's prior contact with social service agencies may have been indicative of already existing disturbances unrelated to the parental divorce. The sample cannot, therefore, be said to accurately represent the population of children who were not distressed prior to divorce.

Kalter (1977) reported one of the first empirically sound demonstrations of the relationship between parental divorce and adjustment problems in children. He assessed a random sample of 587 children presenting at an outpatient psychiatric clinic. The sample included children from intact, divorced, remarried, and widowed families, and the children ranged in age from "under 7" to 17 years of age. Trained objective raters assessed the children on the basis of presenting behavioural symptoms presumed to be indicative of emotional maladjustment.

The results of Kalter's investigation indicated that parental marital status was predictive of adjustment problems. Children who had experienced parental divorce or separation were overrepresented in the sample, and

displayed more adjustment problems and more severe problems than did children from intact or widowed families. Within the group of 70 children whose parents had divorced, but not remarried, complaints included aggressiveness, antisocial behaviour, somatic disorders, and academic problems. Furthermore, age and sex of children of divorce were associated with psychological or psychophysiological disturbance. Specifically, boys in the 7 to 11 year age range were found to display significantly more symptoms than girls of the same age, while girls appeared more distressed than did boys during adolescence. Qualitatively, the disturbed behaviours displayed by the children from separated or divorced homes were consistent with sex role stereotypes; boys tended towards aggression and antisocial behaviour, while girls had more problems with truancy, drugs, affective symptoms, and promiscuity. Similar findings with respect to sex stereotyped maladjustment in children of divorce were reported by Hetherington (1972), Hess and Camara (1979), and Kalter, Reimer, Brickman, and Chen (1985). Finally, Kalter also found that, at adolescence, children were affected by specific types of home environment and, in particular, that children from stepparent homes showed more symptoms than those from intact homes. Later work by Santrock and Warshak (1979) and Santrock et al. (1982) supported and extended this hypothesis by demonstrating that girls were more adversely affected by custodial parent remarriage than were boys.

Kalter's results suggested that age and sex of child are predictors of the child's adjustment to parental divorce. However, his design confounded child's age with elapsed time since parental split, thereby weakening his conclusions about the relationship of child's age to level of adjustment.

Furthermore, the external validity of the study was limited by the lack of a non-clinical comparison group. The results were, therefore, not generalizable outside a pathological population. Lastly, Kalter's study was vulnerable to a 'chicken-egg' problem insofar as it was not clear whether the subjects' psychopathology was present prior to the change in family form or whether the onset occurred subsequent to and, presumably, as the result of the parental split.

In an attempt to rectify the confounds in Kalter's earlier study, Kalter and Rembar (1981) systematically tested the hypothesis that the child's age at the time of parental divorce was significantly associated with later emotional adjustment. One hundred and forty four children of divorce, ranging in age from 7 to 17 years, were assessed for behaviour problems and presenting complaints using a checklist developed for the study. Sex of child and child's age both at the time of parental split and at the time of assessment were found to be predictive of post-divorce behavioural disturbance. With respect to gender, boys appeared to be more adversely affected than did girls. A descriptive analysis of the data revealed an age by sex interaction where boys at latency age during assessment tended to have more problems with aggression, sleep disturbances, toileting, and relationships with parents, while adolescent girls demonstrated more academic and impulse control problems than did their male peers. Finally, the type of problem exhibited by boys who were at latency age during assessment varied with the timing of parental divorce in their lives. Divorce prior to age 6 was associated with interpersonal relationship problems, while later divorces were predictive of school behaviour problems. This progression was not found for girls or for pre or post

latency boys, and no relationship between age of child at time of separation and severity of disturbance was found.

Rutter (1979a) has postulated that divorce is a process resulting in cumulative stress on the child as time progresses. This model would predict a direct relationship between time elapsed since parental split and severity of child's adjustment disturbance. Since the only relationship of this sort observed by Kalter and Rembar was qualitative rather than quantitative, Rutter's hypothesis was not empirically supported. In fact, such a hypothesis may even be challenged by the work of Huntly, Phelps and Rhem (1987) which demonstrated that only child gender was predictive of adjustment problems; level of maternal depression and time elapsed since parental split appeared irrelevant to child behavioural disturbance. Kalter and Rembar's observation of an interaction between sex of child and age at assessment supports the argument that adjustment to divorce is mediated by a sex dependent developmental factor. Wallerstein and Kelly (1980) have suggested that latency age boys are developmentally more vulnerable to current or residual stresses resulting from parental divorce, regardless of the point in the child's life at which the divorce occurred.

Methodologically, flaws in Kalter and Rembar's design and analysis of the study cast some doubt on the validity of the results. Generalizeability was limited by the lack of intact family or non-clinical comparison groups. Reliability of data was also suspect due to use of unstandardized criterion measures and to variability across persons and professions (medical, psychology, or social work personnel) of the evaluators. The lack of internal consistency of the data was particularly damaging to the quantitative analysis of the data, since a regression

analysis utilizing both Pearson Product Moment correlations and partial correlations was employed to determine the predictive relationship between age and sex of the subjects and the criterion variables of emotional adjustment. In particular, stability and validity of the correlation coefficient and associated regression weights is heavily dependent on the reliability of the measures used to obtain the data. Since Kalter and Rembar did not assess the reliability of their measures, any conclusions based on their correlational analysis are questionable.

Kalter's (1977) demonstration of gender stereotyped sex differences in emotional adjustment between male and female children of divorce was supported by Bonkowski, Boomhower, and Bequette (1985) who qualitatively analysed the themes expressed in letters written by children of divorce to their parents. As an exercise completed during a process oriented support group for children of divorce, the children were asked to write open letters to their parents expressing their feelings about the divorce. Boys' behaviour during group sessions was more overtly aggressive than was girls', and boys expressed more anger and more wishes for parental reconciliation in their letters. Boys expressed fear and sadness much less frequently than did girls. Girls, on the other hand, were more compliant and emotional during group sessions, and in their letters, they expressed more themes and more affect than did the boys. Bonkowski and associates took these findings to indicate that female children were more in touch with their affect than were boys, who were thought to be unable to access emotions other than anger. This conclusion may to some extent be challenged by the findings of Biller (1969) and Biller and Bahm (1971) which indicated that male children of divorce are encouraged by their

mothers to express high levels of aggression. Specifically, Biller and Bahm's data support the argument that the findings of Bonkowski et al. reflect boys' learning history, rather than an inability to access or express emotion.

In recent years, several exemplary studies of adjustment of children of divorce have been reported. Hetherington, Cox, and Cox (1979) and Brady, Bray, and Zeeb (1986) disposed of many of the confounds apparent in earlier investigations, while Block, Block, and Gjerde (1986) reported the first study to follow a sample of children through the divorce process from its beginning, thereby allowing causal inferences to be drawn.

Hetherington et al. (1979) provided strong evidence to indicate that gender of child mediates the relationship between parental divorce and child adjustment disturbance. Forty eight children of average age 3.9 years were observed in free play and social interactions, and were rated by teachers on a variety of standardized behavioural rating scales. Hetherington and associates demonstrated that play and social relations in both sexes were disrupted in the first year after divorce, but that boys were more adversely affected. Furthermore, the negative effects on girls appeared to have dissipated after about two years, whereas boys continued to be less mature, more rigid in fantasy, more non-compliant, and more dependent than did their counterparts from intact families. Although the sample size used in this study was relatively small, the design was otherwise excellent in its control of age and sex of child and of elapsed time since parental divorce, and in its use of highly reliable, objective methods of observation. Furthermore, the simple inclusion of an intact family comparison group was of profound methodological significance in

terms of demonstrating that children who have experienced parental divorce display behaviour different from that of children from intact families.

In a methodologically excellent study, Brady et al. (1986) examined the post-divorce adjustment of 703 children drawn from a private mental health clinic. Subjects ranged in age from 2 to 17 years, and came from intact, divorced, separated, and remarried families. Unlike many investigators in the area, Brady and associates controlled child's age, sex, socioeconomic status, and time elapsed since parental split, and they used a sample size large enough to justify their method of statistical analysis. Previous findings that children of separation and divorce are overrepresented in the clinical population and have more frequent and more severe adjustment problems than do children from other home environments were replicated. No differences in adjustment between children from separated homes versus children from divorced families were observed once socioeconomic status was controlled. Furthermore, age and sex of target child proved to be significant predictors of behaviour problems in children of divorce. Consistent with previous research, male children exhibited more problems overall than did girls, and, qualitatively, the disturbances displayed by the children of divorce were largely sex stereotyped. Boys showed more problems with conduct disorders, hyperactivity, aggressiveness, and toileting, while girls were worse on maturity, anxiety, and sleep disorders. Qualitative differences existed between pre-latency, latency, and adolescent age groups; pre-latency age children tended to aggressiveness and conduct disorders, while adolescents had more problems with social and academic related behaviour.

Block, Block, and Gjerde (1986, 1988) have taken an innovative perspective on studying the behaviour of children of divorce. A major weakness in much of the children of divorce literature concerns the fact that estimates of pre-divorce child adjustment are rarely available, thereby leaving research results and conclusions vulnerable to the criticism that any emotional disturbance observed in the child subsequent to parental separation may have been present prior to the split. Inference of a causal relationship between parental divorce and child adjustment disturbance is, therefore, impossible. Block et al. reported a longitudinal study wherein they assessed personality and behavioural characteristics of approximately 100 children of intact families every 2 to 3 years over a period of nearly 20 years. When some of the families divorced, pre-divorce indices of adjustment were available, so the researchers were able to directly observe changes in child behaviour, presumably resulting from the divorce, as the separation and divorce process occurred. Within the sample of divorced families, consistent sex differences, with boys displaying worse adjustment than girls, were apparent both before and after divorce. No sex differences were evident in children of families which remained intact. The argument that sex differences in adjustment of children of divorce are an artifact of pre-existing psychopathology intrinsic to the male child is weakened by Block et al.'s results. They found that the maladjustment exhibited by the group of male children in the divorced sample seemed to be strongly related to measures of parental conflict both prior to and subsequent to the divorce. Girls appeared less affected by parental conflict thereby suggesting greater vulnerability to this type of stress on the part of male children. Consequently, it may be argued that sex differences in

adjustment are not necessarily functionally related to the divorce itself, but to an interaction of gender mediated vulnerability to stress associated with the degree of conflict surrounding the parental separation. This argument will be developed further at a later point in this paper. The contention that it is not the divorce per se, but sustained high levels of interparental conflict which adversely affects the child is supported by the work of Warren, Ilgen, Van Bourgontien, Konanc, Grew, and Amora (1987). This group of researchers found that children who experienced conflict between their divorced parents differed from intact family counterparts in terms of behaviour problems. Furthermore, children of divorce whose parents did not engage in overtly conflictual interactions were not distinguished from the children from intact homes.

In one of the few studies to directly address sex differences in the emotional adjustment of children of divorce, Hodges and Bloom (1984) examined parents' subjective perceptions of their children's adjustment. One hundred and seven children of separation or divorce, ranging in age from 1 to 18 years, were assessed with a child behaviour checklist designed for this study. Elapsed time since last parental split was well controlled, although socioeconomic status of custodial family was ignored. Boys were found to be more depressed, disruptive, and agitated than girls at 2 months and at 6 months post-separation. The results were, however, subject to bias from two sources. First, since the data was obtained largely through unstandardized subjective parental report, it may have been affected by the tendency to perceive children of divorce as being maladjusted (Santrock & Tracy, 1978). Second, Hodges and Bloom did not make clear whether they used the reports of both parents or only the

custodial parent. Recent research by Fulton, Lawrence, Thomas, and Wersh (1986) has indicated that it is extremely difficult to involve non-custodial parents in research about children of divorce. Non-custodial fathers were particularly resistant to participation. If Hodges and Bloom encountered similar difficulties, their data would have been heavily biased towards mothers' perceptions. Since Fulton et al. demonstrated that divorced mothers and fathers have different concerns about the behaviour of their children, a sample which is biased towards mothers' reports of concerns could not be considered representative of the full range of the childrens' behaviours.

In a study notable for excellent methodology, Wyman, Cowen, Hightower and Pedro-Carroll (1985) demonstrated that 9 to 12 year old children of divorce experienced lower perceived cognitive competence, higher anxiety, and fewer sources of social support than did their intact family counterparts. Furthermore, by using standardized child report measures, Wyman and associates circumvented the issues of potential parent/teacher bias in reporting observed child behaviour and of inference of emotional problems based on parental report of behaviour problems. Consequently, it can be said that, within the limits of bias in the childrens' self report, their scores on the measures added validity to the assessment of emotional adjustment to parental divorce.

While there appears to be a substantial body of literature which suggests that boys are more adversely affected by parental divorce than are girls, there is some evidence to refute such a conclusion. Specifically, studies by Reinhard (1977), Kurdek, Blisk, and Siesky (1981), Copeland (1985a) and Hoffman and Zippco (1986) did not support findings which

demonstrated sex differences in the emotional adjustment of children of divorce.

Reinhard (1977) failed to demonstrate a relationship between parental divorce, sex of child, and post divorce adjustment in a group of 46 adolescents between the ages of 12 and 18. The participants were administered a questionnaire assessing initial reaction to divorce, feelings about losing a parent, acceptance of parents, changes in family and peer relationships, school problems, behavioural and affective reactions, and post-divorce interparental conflict. No sex differences were observed on any of these dimensions and, after qualitative analysis of the participants' responses, Reinhard concluded that parental divorce had not affected the subjects in a negative manner.

Reinhard's observations and conclusions lose credibility in the face of a number of methodological flaws to which his study was vulnerable. First, no intact family comparison group was used, so it was impossible to determine whether or not the subjects were deviant from the norm. Second, observations were not independent due to Reinhard's sampling of several children from each participant family. This problem compromised the statistical conclusion validity of Reinhard's results insofar as non-independence violates one of the major assumptions underlying the use of the *t* statistic. A third and related issue concerns the manner of Reinhard's use of the *t* statistic. Although it is not clear from his report, it appears that he made multiple comparisons using the *t* statistic but without controlling for the resultant inflation of Type I error rate (Harris, 1975). Fourth, the questionnaire used to assess adjustment was designed specifically for the study and neither validity nor reliability of

the scale was provided. Finally, since previous research has indicated that sex differences in adjustment to parental divorce are most prominent in children under the age of 12 and are minimal thereafter, it is not surprising that Reinhard's sample of adolescents failed to demonstrate sex differences. Consequently, Reinhard's study does not constitute a serious challenge to the hypothesis that latency age boys and girls respond differentially to their parents' divorces.

Kurdek et al. (1981) examined locus of control, interpersonal relations, divorce adjustment scores, and parental ratings of behaviour in a sample of 58 children of divorce whose parents had been divorced for at least four years. Correlational analysis indicated that increased age, internal locus of control, infrequent visits by the non-custodial parent, and high quality of interpersonal relationships were associated with positive emotional adjustment of the children. Surprisingly, in view of the father absence literature reviewed by Lamb (1977), sex of child and sex of custodial parent failed to reach statistical significance as predictors of adjustment.

Major methodological flaws threatened the validity of the Kurdek et al. results. Small sample size in comparison to the number of predictor variables used, and dubious reliability of the psychometric instruments from which data was obtained limited the interpretability of the regression analysis of the data. Furthermore, subjects in the sample ranged from age 8 to 17 years, but previous research has indicated that sex differences in the adjustment of children of divorce are most prominent at the latency age range (Kalter & Rembar, 1981; Wallerstein & Kelly, 1980). Kurdek and associates' sample covered only the latter half of the latency age range,

and most of the subjects were adolescents, so the overall sample was heavily weighted towards a group of children who were unlikely to display sex differences in adjustment to divorce.

Copeland (1985a) also failed to replicate the finding that male children of divorce exhibit more behaviour problems than do their female counterparts. Maternal report on the Child Behaviour Checklist (Achenbach & Edelbrock, 1983) failed to show any gender related differences on the behaviour problems scale, and child report on both a standardized perceived competence scale and a standardized interview about reactions to parental separation produced a similar result. Interestingly, it was found that, for both sexes of children, maternal report of child problems correlated highly with negative maternal mood state. This finding suggests two possible explanations. First, perhaps there exists a direct and reciprocal relationship between child behaviour and maternal mood state such that the behaviour/mood of one person influences that of the other in the same direction. Alternatively, mothers experiencing mood disturbances may perceive and evaluate their childrens' behaviour more negatively, perhaps as a function of a general tendency to perceive the whole world in a negative manner. This hypothesis would be consistent with work summarized by Beck, Shaw, Rush, and Emery (1983) which indicated that depressed persons may interpret their environments negatively. In any case, within the present context, Copeland's finding suggests that reported childrens' behaviour problems are, at least in part, a function of factors extrinsic to the child.

Finally, Hoffman and Zippco (1986) used standardized self esteem and achievement measures to assess childrens' emotional adjustment and found

that a group of children of divorce did not differ from a group of peers from intact families on these measures. However, this study was poorly controlled in terms of time elapsed since parental split, sex of child, and family socioeconomic status, and the statistical analyses applied had low power.

To briefly recap, it is apparent that children of divorce are at a disadvantage with respect to adjustment when compared with their peers from other types of home environments. Children of divorce, particularly boys, tend to be reported to exhibit more social, emotional, and behavioural problems than do comparable children from intact or widowed homes. Problems with adjustment have been linked to sex and age of child, socioeconomic status of custodial family, and elapsed time since parental separation, but there does not appear to be a clear and consistent theme within the mediating factors which might suggest an explanation for the observed adjustment difficulties and sex differences among latency age children of divorce. Kalter and Rembar's (1981) work hints that latency age boys may be especially prone to adjustment problems and, indeed, most of the research indicating adjustment disruptions in children of divorce has found the problems to be more evident in latency age children. This may suggest a developmental mediating factor. However, the fact that sex differences are consistently observed indicates that the influences of genetic and social/environmental processes must also be considered. While environmental factors have been investigated and will be discussed later in this paper, genetic factors have been ignored.

Long Term Effects

Despite the methodological flaws in the existing literature on children and divorce, there appears to be a general consensus that parental divorce is associated with immediate and significant "emotional maladjustment" of children, and that the negative effect is frequently more pronounced for boys than for girls. The logical extension of this conclusion leads one to ask exactly how long do the postulated negative effects of divorce persist, and are sex differences in adjustment maintained over time? There is little currently available literature examining the long term effects of divorce on children, but recent efforts by Guidubaldi et al. (1983), Guidubaldi and Perry (1985) and Hetherington et al. (1985) suggest that both the adverse effects of divorce and the sex differences persist for extended periods of time.

As part of a nationwide study of the effects of divorce on children, Guidubaldi et al. (1983) demonstrated sex differences in the social and academic adjustment of affected children. The study was unique by virtue of its large sample size (341 children of divorce, 358 children of intact families), its use of a wide range of reliable criterion measures, its trained evaluators (psychologists), its excellent methodological controls for parental marital status and age, sex, and socioeconomic status of the child, and its thorough statistical analyses. Specification of age was inexact inasmuch as school grade, rather than chronological age was used as the criterion variable. In a nationwide study of the sort completed by Guidubaldi's research group, there may be a significant degree of variability of the actual ages of children who are in the same school grade. However, since the children were sampled from grades 2 to 5, it is

reasonably safe to assume that they were within the latency age range. Results indicated that sex differences were present in children of divorce on 11 of 16 behavioural, affective, and personality related measures of adjustment, on the Vineland Social Maturity Scale, on parent and teacher ratings of peer interactions, and on all Wide Range Achievement Test Scores. Girls consistently were superior to boys on the measures. Furthermore, previous results indicating that children of divorce are less well adjusted than children of intact families were replicated.

At a two year follow-up of the children in the original sample, Guidubaldi and Perry (1985) reported that all initial findings had been maintained, suggesting that hypothesized overall and sex specific effects of divorce persist over relatively long periods of time. Similar, qualitative observations were reported by Wallerstein (1985, 1987). With respect to the issue of sex differences in the persistence of effects of divorce, Guidubaldi and Perry noted that the correlation between mental health measures at the first assessment and those at the follow-up were higher for girls than for boys, thereby suggesting greater consistency of girls' reactions over time. An alternative explanation is suggested by the Hetherington research group's evidence indicating differential rates of post-divorce adjustment between male and female children. If there did exist systematic differences in time since parental split between the male and female children in Guidubaldi and associates' sample and if, as Hetherington et al. (1979) argued, girls recover from divorce faster than boys, it is entirely possible that the girls might have reached a plateau in emotional adjustment at initial assessment, while the boys were still in transition at that time and over the following two years.

A recent investigation by Hetherington et al. (1985) supports this argument. In a six year longitudinal study of behaviour problems in the children of divorce observed in their 1978 and 1979 studies, Hetherington and associates (1985) found that externalizing behaviour was more stable for boys, while internalizing was more stable for girls. Specifically, aggressiveness and general deficits in prosocial behaviour of boys tended to remain constant over time, whereas aggression in girls decreased over time. Unlike many previous investigators, Hetherington and associates controlled for time elapsed since divorce in their initial sample. Consequently, male and female subjects were known to be comparable on this factor, thereby ruling out temporal confounds. Furthermore, the Hetherington et al. follow-up extended past the two years found by Hetherington and associates (1979) to be required by girls to attain a plateau in post-divorce adjustment. It may be assumed, then, that female children had attained maximum emotional recovery by the time of the six year follow-up. Consequently, sex differences observed at that point could be said, with some degree of certainty, to reflect a differential rate of adjustment between boys and girls. Results of the Hetherington et al. (1985) study suggested that boys are more adversely affected by divorce than are girls, and that they take longer to regain their pre-divorce emotional equilibrium.

The hypothesis that effects of divorce have particularly long standing ramifications for males is supported by the work of Borduin and Henggeler (1987) who found divorce-related early father absence to be a factor in teen age delinquency and poor quality mother son relationships. Standardized observational, self report, and personality measures revealed

higher degrees of interpersonal conflict and less warmth in divorced mother/son dyads than in intact family pairs; consistent with Kalter and Rembar's (1981) findings, this effect was especially pronounced in families where the divorce had occurred early in the child's life (prior to age 5). Behaviour problems were functionally related to difficulties in mother/son relations, thereby suggesting that incidence of teen delinquency should be high in the more conflict laden divorced families.

Methodological inadequacies notwithstanding, the research leaves little doubt that parental divorce is associated with a wide spectrum of short term and long term adjustment problems in children, especially latency age boys. That the phenomenon has been observed consistently in the face of a variety of threats to the internal, external, and statistical conclusion validity of the research indicates that it is sufficiently robust as to be considered a systematic rather than a chance effect.

The demonstration that children of divorce exhibit more adjustment problems than do their intact family counterparts raises a number of interesting questions, one of the foremost of which is 'Does parental divorce cause adjustment problems in children?'. Many researchers and reviewers have made the mistake of inferring a causal relationship between parental divorce and child adjustment difficulties on the basis of non-experimental or quasi-experimental research. Given the lack of experimental control in such situations, attribution of causality and statements about direction of causality are unwarranted. However, it can justifiably be argued that the research indicates reasonably conclusively that parental divorce is associated with or even predictive of a constellation of behavioural adjustment problems in children.

The logical extension of the conclusion that an association exists between parental divorce and child adjustment problems questions the exact nature of that relationship. This issue has been superficially addressed by those studies which have demonstrated age, sex, and socioeconomic status of child, and time elapsed since parental split to be mediators of adjustment in children of divorce. However, the mechanisms or means by which these factors influence child adjustment remain uninvestigated and unknown. Perhaps the most fruitful line of research which addresses the question of the nature of the association between parental divorce and child adjustment problems has been the 'Parent Absence' literature. This body of research addresses the critical question of whether child adjustment problems are associated with the experience of having only one parent, or with the transition from two parents to a single parent family, or some combination thereof. As shall be seen in the next section, comparisons of adjustment, environmental, and intrapersonal factors between children of intact, divorced, and bereaved families has been useful in determining the variables which are unique to different types of home environments.

Sex Differences in Response to Parental Absence

For many years, the developing child's identification with the same sex parent has been held to be a critical factor in the development of his or her later emotional and social adjustment (Serbin, 1980). Children of divorce are in a position where they are more likely than other children to experience, for at least some period of time, the absence of a parental role model who is intimately involved in their daily lives. Since child

custody is more frequently awarded to mothers than to fathers, the lack of a same sex parental role model is most prevalent in the population of male children of divorce (Derdeyn, 1976).

Serbin (1980) argued that sex role and general social behaviours are acquired through either a social learning or a cognitive development process. In support of the social learning perspective, Mischel (1966, 1970) postulated the acquisition of sex typical and social behaviours through a simple operant paradigm. Attitudes and beliefs, and intellectual understanding of one's social and sex role identity are said to follow upon the acquisition of specific sex role and social behaviours. Those behaviours are thought to be learned through modeling of other individuals, particularly parents, in the environment. The opposing cognitive viewpoint, represented by Kagan (1964) and Kohlberg (1966), suggests that the socialization process acts in the reverse manner of that proposed by Mischel and the social learning theorists. Specifically, the cognitive development model argues for the development of intellectual, social, and sex typical beliefs and attitudes (schemata), followed by the learning of sex typical behaviours which are compatible with the child's perception of his or her sex role. Serbin (1980) argued that it is impossible to determine the sequence of acquisition of sex typical and social attitudes and behaviours, but that it is more productive to view the process as a simultaneous and interactive learning of both attitudes and behaviours. However, all three perspectives share the common contention that children whose socialization may be disrupted by the loss of a parent to death or divorce are at high risk for some form of psychological disturbance.

Regardless of the exact sequence of the socialization process, it is generally agreed that socialization is a function of a number of different environmental influences. Peers, teachers, children's literature, and the media all serve to teach social behaviour to young children (Serbin, 1980). Of particular importance within the present context is the role of the parents. By virtue of the amount of contact between parent and child, it can be argued that the parents may act as the primary source of social and sex role modeling for the developing child, and as the primary source of reinforcement for a variety of behaviours and beliefs. According to Pederson, Rubenstein, and Yarrow (1979), the presence of only one parent in a family limits the number of socially and sexually appropriate behaviours, interests, and attitudes available for the child to model. Since children of divorce experience the absence of one parent and, therefore, the absence of one major role model, it may be argued that divorce should affect emotional, social, and behavioural adjustment through the absence of that role model. Consequently, a number of investigations have been directed at determining if the absence of a parental same sex role model in the daily life of the child is associated with emotional/social, or cognitive disturbance in children of divorce. Given the overwhelming tendency to award custody to mothers, most studies have concentrated on the effects of father absence, particularly on boys. However, a small body of recent research into the effects of the awarding of joint custody rather than the more traditional single parent maternal custody has shed some light onto the issue. Each of these dimensions will be addressed separately.

Emotional and Social Adjustment

In an early study, McCord, McCord, and Thurber (1962) demonstrated that paternal absence as the result of death, desertion, mental illness, or divorce was highly correlated with social and sex role deviance in male children between the ages of 10 and 15 years. The 50 boys from broken homes examined in the study displayed more feminine identification, antisocial behaviour, and anxiety than did a comparison group of 150 children from intact homes. The authors concluded that paternal absence was responsible for the deviant behaviour observed in boys from broken homes.

Several methodological flaws threatened McCord and associates' conclusion about the relationship between father absence and psychological disturbance in boys. First, the divorced and intact family groups were of unequal sizes and the divorced families were not necessarily comparable on age of child and duration of father absence. As has been mentioned previously, the latter factors have since been found to have a significant mediating effect on the impact of divorce on children (Hetherington et al., 1979).

A second and critical threat concerns the fact that McCord and associates' data were not broken down and analysed by reason for father absence. Intuitively, it seems reasonable to speculate that systematic environmental differences could exist between homes with differing reasons for paternal absence, and that such differences could have introduced uncontrolled variation into the data. Indeed, Rutter (1971) and Santrock (1975, 1977) reported that boys from widowed homes are significantly less

disturbed in terms of both moral development and aggressiveness than are children from separated or divorced homes. Furthermore, Biller (1969), Biller and Bahm (1971), and Santrock (1975) have found divorced mothers to be more supportive of the exaggerated sex stereotyped behaviours of their sons than are widowed mothers. Finally, Emery (1982) argued that interparental conflict is at higher levels in divorced homes, both before and after parental separation, than in widowed or intact families. Collectively, these results suggest that children from parent absent homes cannot be treated as a homogenous group. Given the relatively simplistic analyses applied, McCord and associates' subject sample was too heterogeneous for sweeping conclusions to be drawn about the effects of father absence on children. The results would have had greater credibility if reason for father absence had been included in the data analysis.

In a study similar to that of McCord et al. (1962), Tuckman and Regan (1966) sampled a psychiatric population of children and analysed differences in behaviour as a function of type of family home (intact, separated, divorced, widowed). The 1767 children in the sample ranged in age from 6 to 17 years, and the majority of broken homes involved paternal rather than maternal absence. Children from divorced homes were overrepresented in the sample, as were children in the 6 to 11 year (latency) age range. Data were analysed separately by sex, but no direct male female comparisons were made; Tuckman and Regan inferred sex differences through broken home versus intact home comparisons within sex groups. Analysis as a function of age and sex indicated that pre-latency males from single parent homes were more antisocial than comparable children from intact homes. Similarly, adolescent boys tended to be more

aggressive if they came from widowed or divorced families. No such differences were found for female children at any age. The generalizeability of the conclusion that father absence is predictive of adjustment problems in male children is limited by the nature of the subject sample used by Tuckman and Regan. Specifically, the results cannot be extended to the non-psychiatric population of children from single parent homes.

Biller and Bahm (1971) reported a number of interesting findings relating father absence to perceived maternal behaviour and masculinity of self concept in 40 junior high school boys. Average age was about 14 years. Compared to "father present" boys, boys who had lost their fathers to death or divorce prior to age 5 demonstrated significant deficiencies in masculinity of self concept. This result supports the general contention that the absence of a same sex parental role model is necessary to appropriate sex role development.

Perhaps more important in view of the evidence indicating that male children of divorce display inflated levels of aggressiveness, is Biller and Bahm's finding that perceived maternal encouragement of aggressiveness was associated with increased masculinity of self concept in children of divorce. A similar finding was reported by Biller (1969) who examined sex role preference as a function of maternal encouragement in kindergarten aged boys. The conclusion that divorced custodial mothers encourage aggressiveness in their male offspring may account for the increased levels of aggression in children of divorce as compared to same sex intact family cohorts. Furthermore, if maternal encouragement of aggression is equated with traditional stereotyped sex role attitudes, it may reasonably be

argued that the custodial parent's position on the traditionality/liberalism continuum may be predictive of the male child's emotional and social adjustment as reflected by commonly seen problems such as aggression and antisocial behaviour. Clearly, research is needed to investigate this hypothesis. If degree of traditionality of custodial parent proves to be a predictor of children's adjustment, the mechanism of the effects of of parental traditionality on child adjustment must be investigated. Specifically, it is not clear whether traditionality would act as a stressor when the child would be under pressure to take on a proscribed, exaggerated sex role, or if it would simply act as a relatively innocuous criterion for parental reinforcement of sex stereotyped behaviour by the child.

Further to observations of exaggerated aggressiveness on the part of male children of divorce, it might be speculated that the phenomenon is related to the time spent with the non-custodial father. Since children of divorce often spend protracted periods of time (eg. weekends) with their non-custodial parent, it can be argued that the contingencies for behaviour within the non-custodial environment also affect the child's actions outside that setting. The clinical observations of Fulton et al. (1986) have indicated that children are more aggressive, more angry, and less compliant after a visit to the non-custodial parent. Although the reasons for this phenomenon are not clear, it is possible that the father may reinforce such behaviour during the child's visit with him. On the other hand, perhaps a change in response contingencies from a lenient paternal environment which reinforces a wide range of behaviours to a more authoritarian maternal environment which differentially reinforces only

aggressiveness leads to a behavioural contrast effect as postulated by Gross and Drabman (1981, 1982). These authors contended that when the child returns to the maternal home, reinforcement for all behaviours but aggression is functionally withdrawn, so the frequency of the aggressive behaviours rewarded by the mother increases in order that the amount of reinforcement obtained by the child remains constant. Until empirical comparisons of the environmental contingencies existing in the custodial and non-custodial homes have been completed, these explanations must remain speculative.

Santrock (1977) examined the effects of father absence on sex typed behaviour in 45 late latency age (10 to 12 years old) male children as a function of the reason for parental absence and the age of the child at the onset of parental absence. Teacher ratings were used as indices of masculinity-femininity, aggression and dependency. Results replicated previous findings which indicated that children from father absent homes tended to be more aggressive, disobedient, and independent than their counterparts from intact homes. Within the father absent sample, direct comparison between boys from divorced homes and boys from widowed homes revealed that the children of divorce were more aggressive in terms of teacher ratings and experimenters' observations of behaviour.

Recent research by Amato (1987) may provide some insight into the factors underlying the higher incidence of child behaviour problems in parent absent families. Amato examined child report of family processes in single parent, remarried, and intact homes and found that children from maternal custody divorced families experienced higher degrees of sibling conflict, less family cohesion, and less paternal support and involvement

than did children from two parent families. It can be argued that dysfunctional process may contribute to increased environmental stress through decreased emotional support for the child, thereby resulting in emotional upheaval and misbehaviour.

A significant gap in the parent absence literature relating to divorce concerns the effects on child adjustment of maternal rather than paternal absence. The scarcity of empirical research on this issue is most likely due to the disproportionately small number of divorce cases in which child custody is awarded to the father; in Canada, only 12.4% of divorce cases in which children were involved resulted in paternal custody, while 69.3% of cases ended in maternal custody (Statistics Canada, 1985). The small numbers of father custody homes notwithstanding, existing research on the effects of maternal deprivation suggests that the impact of mother absence on children of divorce may equal that of father absence. Rutter (1979b) reviewed the maternal deprivation literature and concluded that separation from mother is associated with a constellation of psychological symptoms in the child. Included were acute distress, affectionless psychopathology, conduct disorder, and intellectual retardation. The latter two syndromes appear very similar in nature to the problems in emotional, social, and behavioural adjustment, and deviations in cognitive development observed in children of divorce living in father absent homes. Clearly, research is needed in order determine if and how maternal absence due to divorce is associated with child adjustment problems.

The hypothesis which contends that child adjustment is dependent on the presence of a same sex parental role model would predict that female children of divorce in paternal custody homes would exhibit more adjustment

problems than their male counterparts. Interestingly, Santrock and Warshak's (1979) and Santrock, Warshak, and Elliot's (1982) studies of the cognitive maturity of children of divorce living with same sex versus opposite sex parents has tentatively supported that prediction. Research is also needed to determine if the hypothesized effects of maternal absence due to divorce are comparable with those of father absence, and to determine if various reasons for mother absence are differentially predictive of child adjustment.

In summary, the father absence literature demonstrates that latency age boys in maternal custody homes are more poorly adjusted than girls in similar situations or boys from other home environments. Biller's (1969) and Santrock's (1975) work clearly indicates that boys' learning history may be a major factor in the development of their overly aggressive behaviour. The fact that the research consistently indicates that latency age children are more poorly adjusted than children of other ages suggests that developmental factors play a part in mediating adjustment to divorce. Wallerstein and Kelly (1980) have postulated that developmental vulnerability in the form of cognitive immaturity of latency age children accounts for the greater number of adjustment problems observed in these children. This hypothesis has been supported by studies relating cognitive development to father absence.

Cognitive Development

A large proportion of the father absence research has focused on the relationship of father absence to children's cognitive development. Unlike the emotional adjustment investigations which relied heavily on qualitative

and subjective measures, the cognitive development literature has been based on quantitative outcome as measured by highly reliable standardized intelligence and achievement measures. Consequently, provided that child's age, sex, socioeconomic status, and parental marital status are controlled, studies in this area tend to have greater internal and statistical conclusion validity than do reports on emotional adjustment of children living in single parent homes.

Shinn (1978) reviewed the existing literature on father absence and children's cognitive development, and concluded that poor performance was associated with reduced socioeconomic status in single parent families, poor parent-child interactions, and high family anxiety levels. Contrary to the predictions of the social learning hypothesis was the finding that sex role identification was not highly predictive of cognitive functioning. With respect to sex differences, Shinn noted that cognitive deficits associated with father absence were more evident for boys if the loss of the father occurred before the child was 5 years of age; there did not appear to be any evidence that timing of father loss mediated cognitive development in female children. This conclusion is consistent with the findings of Kalter and Rembar (1981) which suggested that timing of divorce in the male child's life is predictive of specific problems in emotional adjustment. Shinn also noted that boys from father absent families displayed patterns of intellectual performance thought to be characteristic of female children. Specifically, verbal reasoning was found to be better than visuo-spatial reasoning in boys from father absent homes. It was not clear from the evidence reviewed whether the observed verbal/performance difference in father absent male children reflected a deficit in

visuo-spatial skills, an increase in verbal reasoning ability, or both. Furthermore, it is conceptually not clear that males' higher performance on verbal tasks should be considered to reflect emotional disturbance. While such performance does not fit with common stereotypes of males as visuo-spatial processors who are generally deficient in linguistic skills, recent investigations utilizing the WISC-R as a criterion measure have found that normal males routinely perform better than females on the verbal subscales of that test.

An examination of correlates of children's adjustment to parental divorce by Kurdek and Berg (1983) revealed that 9 year old girls were superior to boys on parental ratings of emotional adjustment and that they had greater cognitive maturity with respect to understanding of their parents' divorces. This trend was found to be consistent across age, leading the authors to the conclusion that female children of divorce are, in general, better adjusted and intellectually more mature than their male counterparts.

In contrast to investigations which assessed only academic aspects of cognitive functioning, Hoffman (1971) attempted to relate father absence to conscience development in early adolescent children. Significant sex differences were observed. Boys from father absent homes were more aggressive and less mature with respect to moral judgement, remorse, and acceptance of blame than were boys from intact families. No differences were found between girls from intact versus father absent households. Hoffman's research was methodologically sound in its use of comparison groups matched on factors such as age of child and socioeconomic status of family which have been shown to be salient to the emotional adjustment of

father absent children (Guidubaldi & Perry, 1984; Kalter & Rembar, 1981; Maxwell, 1961; Sutton-Smith, Rosenberg, & Landy, 1968). However, no attempt was made to differentiate participants on the basis of cause of paternal absence or to determine if any systematic variance within the father absent group occurred as a result of that factor.

In a study similar to that of Hoffman (1971), Santrock (1975) examined the effects of father absence versus father presence on moral development of 120 latency age fourth and fifth grade boys. Results indicated that children from intact homes scored higher on moral judgement scales than did boys from widowed or divorced homes. Both social learning and cognitive development theories of socialization, with their emphasis on the presence of the same sex parent in the home as a role model, would predict that with all other factors being equal there should be little or no difference between boys from widowed and from divorced homes. To the contrary, Santrock found that the children from divorced homes were more poorly adjusted with respect to moral development than were children from widowed homes. This phenomenon is not surprising in light of findings which indicated that divorced mothers encourage aggressiveness in their male children (Biller, 1969; Biller & Bahm, 1971; Santrock, 1977). Although no direct examination of spontaneously occurring differential reinforcement of specific behaviours has been attempted, it might be speculated that moral development, dependency, and emotional expressiveness are differentially extinguished by divorced mothers who reward only aggressive behaviours.

Alternatively, it may be argued that Santrock's observation of greater disturbance in moral development in children of divorce as compared to children from widowed homes is a function of interparental conflict prior

to the parental separation. In a review of the relevant literature, Emery (1982) noted that marital discord has been consistently associated with emotional disturbance in children of both broken and intact homes. This suggests that environmental conflict, rather than divorce per se, may be a causative factor in the observed problems of children of divorce. Furthermore, Emery's conclusion may account for the apparent differences in level of adjustment between children of divorce and children of widowed homes; presumably, more conflict existed prior to father absence in homes which were broken due to divorce, than in homes where parental absence was the result of death. In light of the research findings on the effects of marital discord, it would be expected that more child deviance would be observed in homes with higher levels of environmental conflict. Indeed, this was the case in Borduin and Henggeler's (1987) long term study of adolescent delinquents. This point will be elaborated later.

Finally, a serious criticism of Santrock's investigation arises from the findings of Wallerstein and Kelly (1980), Kurdek, Blisk, and Siesky (1981), and Hetherington et al. (1979, 1985) which suggested that the amount of time elapsed since parental split is a critical factor in predicting children's emotional adjustment to the change in family form. Two thirds of Santrock's children of widowed or divorced families were comparable with respect to time since departure of father (ranging from 6 months to 4 years). The remaining third of the father absent sample was comprised of boys whose parents had been divorced 5 to 10 years prior to the assessment. Not only did the children of divorce outnumber the orphaned group by a ratio of two to one, but the overall sample of subjects was comprised of two populations distinct with respect to time elapsed since fathers'

departure. In view of Wallerstein's (1985, 1987) observations which indicated that the negative impact of divorce dissipates over time, it is possible that the group of boys whose parents had been divorced for more than 4 years had naturally returned to their pre-divorce level of adjustment. Any deviance on the part of the boys from the recently divorced group could, therefore, have been masked when the two divorced groups were combined for comparison with the orphaned group.

The results of the father absence literature support the prediction that father absence is detrimental to the general adjustment of male children, but refute the specific corollary argument that latency age boys require the presence of a same sex role model in order to learn traditionally masculine sex role behaviours. Contrary to the latter contention, the research indicates that male children from father absent families tend to display increased stereotyped sex role behaviours (e.g. aggressiveness) to the point of being deviant from the norm. Although the reasons for this phenomenon are not entirely clear, there is some evidence to suggest that divorced mothers reinforce exaggerated stereotyped sex role behaviours in their male offspring, perhaps at the expense of other behaviours such as moral development. Furthermore, consistently poorer adjustment of children of divorce when compared with children from widowed homes suggests that the observed adjustment problems in the children of divorce may be related to factors other than just the transition from a two parent to a single parent home. If the change in family structure was the key mediating factor, then little difference in adjustment would be expected between children of divorced and children of bereaved homes. Since this appears not to be the case, it may be speculated that environmental factors unique to the

divorced home are responsible for the more frequent and more severe adjustment problems exhibited by these children.

Custody Type

Tangentially related to the issue of parental absence has been the recent upsurge in interest in the effects of differing types of custody on the emotional adjustment and sex role behaviour of children of divorce. The law defines two major types of custody: single parent custody in which one parent is legally responsible for all major decisions in the upbringing of the child, and joint custody in which the legal responsibility for child rearing is shared by both parents. In general, but not always, joint custody involves more frequent and better quality contact between the child and both parents than does single parent custody. When custody is awarded to one parent, the nature and degree of contact between the child and the non-custodial parent may be largely dependent on the amount of residual hostility existing between the divorced couple. In a situation where the relationship between the parents remains cordial or co-operative, single parent custody may be functionally indistinguishable from joint custody, since parents may voluntarily share child raising responsibilities. Where parental relationships are hostile, the child's contact with the non-custodial parent may be minimal and of poor quality. As shall be argued in a later section of this paper, the latter situation may have pronounced stressful negative effects on the child. Within the present context, discussion shall be limited to research examining sex differences in child adjustment as a function of custody type.

The parental absence literature has examined in great detail the adjustment of male children of divorce living in maternal custody homes. The logical extension of this line of research has led to empirical comparison of children living in mother custody homes versus those living in father custody homes. This body of research tangentially addresses the issues raised earlier about the need for empirical investigation of the effects of divorce related maternal absence.

Lowenstein and Koopman (1978) compared the self esteem of 40 boys between the age of 9 and 14 living in maternal custody homes with that of a similar number of boys living with single parent fathers. Contrary to predictions of the socialization hypotheses, no differences were found between the two groups of children, although boys who had frequent contact with the non-custodial parent had higher self esteem than the boys who rarely (less than once a month) saw the absent parent. These results suggested that the presence or absence of a same sex role model in the home does not seem to mediate emotional adjustment of latency age boys, but rather, that interactions with both parents promotes healthy adjustment.

Lowenstein and Koopman's finding is consistent with other research indicating that children from functional two parent families are better adjusted than those from single parent homes (Guidubaldi et al., 1983; Wallerstein & Kelly, 1980). It also suggests that joint custody, with its inherent assumption of frequent contact between children and both parents, might maximize the probability for positive outcome vis a vis the child's emotional adjustment. This conclusion is supported by the findings of Lamb (1977) which indicated that conventional sex roles, abilities, and behaviours were also associated with frequent contact between children and

both divorced parents, and by Hetherington et al.'s (1978) conclusion that cognitive performance of children of divorce is directly related to frequency of contact between the child and both parents.

Warshak and Santrock (1983) examined the issue of father custody versus mother custody from the child's perspective. Unlike many other investigators who utilized only parental report of childrens' adjustment and behaviour, Warshak and Santrock also assessed the childrens' views about the effects of their parents' divorces. Sixty-four children between the ages of 6 and 11 years were evaluated through structured interviews and projective story tasks. Interestingly, girls appeared to be more adversely affected by living with the opposite sex parent than did boys. Regardless of sex of custodial parent, most boys identified with their fathers, while girls were found to identify with their mothers more strongly when they were in mother custody homes than when they were living with their fathers. Girls also expressed more separation anxiety in father custody families than in mother custody homes, while there was no difference between the two groups of boys on this factor. These results were not surprising, however, in light of previous evidence which indicated that male children of divorce are encouraged to display exaggerated masculine sex role behaviour, while girls are encouraged to express affect. Consequently, Warshak and Santrock's apparent sex difference may have been due to environmental rather than intrapsychic factors.

The contention that environmental factors mediate sex differences in the adjustment of children of divorce was supported by the work of Santrock and Warshak (1979) and Santrock, Warshak, and Elliot (1982) which indicated that same sex custodial parent and child combinations were found to be

associated with more positive outcome than opposite pairings. Qualitative description of the childrens' living environments in these studies revealed that levels of situational stress were lower in homes where parent and child were of the same sex. Specifically, the home environments with same sex pairings were more supportive and less conflictual, suggesting that a minimally stressful environment is predictive of positive child adjustment outcome.

Wolchik, Braver and Sandler (1985) and Shiller (1986) directly compared the emotional adjustment of male children of divorce living in maternal custody homes with that of children living in joint custody homes. Wolchik and associates examined behavioural symptoms, number of positive experiences, and self esteem in a group of 8 to 15 year old boys and girls from maternal versus joint custody homes. Like Koopman and Lowenstein's subjects, the two groups did not differ on behavioural or affective symptoms. However, the children from joint custody homes reported higher self esteem, more positive life experiences, and more frequent contact with their fathers than did the children from maternal custody homes. Using a slightly different subject pool (6 to 11 year old males), Schiller found that boys from maternal custody homes demonstrated more emotional and behavioural disturbance than did boys from joint custody situations. Both groups of children of divorce were found to be more disturbed than the normative sample on which the test used was standardized. Schiller's finding suggests that, although joint custody may not totally eliminate the adverse effects of divorce on male children, it may alleviate them to some extent.

Since joint custody is a relatively new concept, little research has yet been done to compare it with single parent custody. However, results of the few available investigations indicate a strong tendency for joint custody to be somewhat less detrimental to children's adjustment, especially for boys, than is single parent custody. Such a result is not unexpected in light of i) social learning theory's contention that the presence of same sex adult role models are necessary to healthy socialization, ii) Emery's (1982) finding that degree of parental conflict is predictive of children's adjustment, and iii) Pederson et al.'s (1979) argument that the presence of two parents in the home provides a wider range of appropriate behaviours for the child to model. Furthermore, the active involvement of the father in child rearing may counteract or prevent the divorced mother's encouragement of excessive aggression in male children. Clearly, further comparative research between single and joint custody is needed.

Both the parent absence research and the joint custody literature suggest that factors specific to the environment of the divorced home appear to mediate the relationship between parental divorce and child adjustment. Since there is no reason to suspect that children of divorce are innately more prone to adjustment problems than are children from other home environments, and since the parent absence research demonstrates that a general change in family structure does not appear wholly responsible for the difficulties experienced by children of divorce, the logical conclusion is that the pre or post divorce home must contain unique environmental factors which are associated with children's adjustment problems. Extrapolation of the joint custody research provides some insight as to the

exact nature of these defining factors. According to Steinman et al. (1985), a high degree of interparental cooperation is necessary to maintain successful joint custody, while high residual interparental conflict is counterproductive to successful outcome and usually results in single parent custody arrangements. As described earlier, it has also been found that children in joint custody homes display fewer adjustment problems than do children in single parent homes. Clearly, the covariate in this situation is degree of interparental conflict; children in homes with minimal conflict (joint custody) appear to be better adjusted than do children living with more conflict (single parent custody). A more general version of this postulate was constructed by Hetherington (1979) who argued that high levels of any sort of environmental stress are predictive of poor child adjustment. The presence of environmental stress in the lives of children of divorce, and related sex differences in amount of stress experienced and in coping style will be considered in the next section.

Sex Differences in Stress and Coping

There is little doubt that children of divorce experience higher levels of stress than do children of intact families. Changes in home, school, and social environment, and in socioeconomic status may all contribute to cumulative stress in the lives of these children (Clingempeel & Repucci, 1982; Rutter, 1979a). One of the major contributions to the exaggerated stress levels thought to be experienced by children of divorce is intrafamilial conflict, particularly that engendered by interparent hostility (Hodges, Wechsler, & Ballantine, 1979; Jacobson, 1978). Much of the relevant research has attempted to determine the nature of the

relationship between degree of parental discord, childrens' coping strategies, and children's adjustment. Emery (1982) reviewed the literature on interparental conflict and concluded that marital discord both before and after parental separation is detrimental to the childrens' emotional, social, and behavioural adjustment. Of particular interest within the present context was the finding that sex of child and type of coping response were included in the parameters thought to mediate the effects of interparent hostility on children's adjustment.

Environmental Conflict and Adjustment

A number of investigations to date have demonstrated a differential effect of marital discord on boys and girls in divorced families. Recall that Rutter (1971) found a significant positive relationship between the degree of marital distress in a family and social deviance in boys. Wallerstein and Kelly's (1980) qualitative observations suggested a similar conclusion; the more conflict subjectively reported by parents, the greater was the degree of disturbance observed in the children, especially the boys. Hetherington et al. (1978) found that, as intrafamilial conflict increases in the first year after divorce, rate of behavioural disturbance in boys also increases. Finally, Block, Block, and Morrison (1981) reported that parental agreement was related to ego development in male children from highly discordant families.

Hess and Camara (1979) reported that, for a non-clinical sample of children of divorce between the ages of 9 and 11, boys appeared more vulnerable to family process related stress than were girls. Children of divorce were found to be inferior to children of intact families on social

and academic indicators, and this discrepancy was found to be more significant for boys than for girls on measures of aggression and stress. Moreover, it was found that child outcome was negatively related to assessed levels of parental harmony. Unfortunately, Hess and Camara specified neither the nature of the measures used to assess stress, nor the operational definition and criteria by which stress was evaluated.

Porter and O'Leary (1980) and Emery and O'Leary (1982) attempted to relate levels of parental discord to child adjustment in a sample of children of divorce presenting at a psychiatric clinic. Porter and O'Leary reported that, with respect to overall psychopathology, boys under the age of 10 were more affected by interparental hostility than were older boys, or girls of any age. Also, consistent with findings indicating exaggerated levels of aggression in latency age male children of divorce, it was found that a significant positive relationship existed between marital hostility and conduct disorder in boys under 10 years of age.

Emery and O'Leary (1982) assessed the impact of marital discord from the child's perspective. Children aged 8 to 17 presenting at a regional psychological services center were asked to rate their parents' marital discord on a checklist of statements relating to home and school environment. The children themselves were assessed through parental report on a standardized list of behaviour problems. Significant relationships between childrens' ratings of parental conflict and parents' ratings of child adjustment were found for boys, but not for girls. A similar correlation was found between parents' evaluation of discord and their assessment of child behaviour.

Finally, Warren et al. (1987) compared children of divorce to children of intact families on a variety of well standardized behavioural scales and found no systematic group differences except in cases where the child of divorce witnessed high levels of interparental conflict. This effect was, unfortunately, not broken down by sex of child, but the conclusion that parental conflict may be an important factor mediating general child adjustment to divorce is valid.

The research on parental conflict and children of divorce validates the intuitive hypothesis that hostility between divorcing parents can have a serious detrimental impact on the children. The logical extension of this conclusion, based on boys' reports of increased occurrence of negative life events subsequent to parental divorce (Hetherington et al., 1982) and Santrock and Warshak's (1979) and Santrock and Tracy's (1978) observations that male children of divorce are exposed to more environmental stressors than are females, would suggest that a full array of environmental stressors may contribute to adjustment problems in children of divorce. Future research should be directed at identifying the nature of such stressors. As shall be seen in the next section, the postulated impact of environmental stressors on children of divorce appears to be directly dependent on the efficacy of the child's coping manoeuvres.

Coping Strategies

Wallerstein (1983) has proposed that the child's successful adaptation to parental divorce is dependent on his or her mastery of six hierarchical coping tasks. The child must acknowledge the reality of the marital breakup, disengage from parental conflict, resolve the loss, resolve

feelings of personal guilt, accept the permanence of the divorce, and achieve realistic hopes for future relationships for both parents and children. Mastery of each of these steps requires sufficient cognitive maturity to be able to identify and assess the issue to be coped with, to develop and evaluate a range of coping options, and to choose the most effective strategy for dealing with the targeted issue. Wallerstein has suggested that children of divorce who are deficient in cognitive maturity will be unable to negotiate the coping tasks and will, therefore, experience adjustment problems. Since latency age male children of divorce have been shown to be more cognitively immature than their female counterparts (Hoffman, 1971; Santrock, 1977), Wallerstein's argument would predict sex differences in both level of emotional adjustment and use of coping strategies. In the general population, gender mediated differences in types of coping strategies employed by boys versus girls have been repeatedly documented (Dweck & Bush, 1976; Dweck, Goetz & Strauss, 1980; Dweck, Davidson, Nelson & Enna, 1978; Compas, 1987).

Plunkett and Kalter (1984) reported on coping strategies as a function of childrens' beliefs about reactions to hypothetical parental divorce. One hundred and sixty-six third and fifth grade children were asked to rate their level of agreement or disagreement with a variety of hypothetical reactions to divorce. The reactions tapped dimensions of Sadness, Active Coping, and Abandonment. Male children scored higher on the Active Coping preference scale than did girls; no other sex differences were observed. This result may suggest that boys bring with them into the divorce situation a more adaptive perspective on dealing with parental divorce than do girls. This conclusion would predict superiority of emotional

adjustment of male children of divorce. However, in light of the body of research which demonstrates poorer adjustment in male children of divorce, such a conclusion might be disputed. It can be argued that, while boys may take a more active coping strategy than girls, males' coping mechanisms may be ineffective. Wallerstein and Kelly (1980) have qualitatively examined coping styles of children of divorce, and found that boys tend to make use of a "layered response" involving simultaneous denial and distress. While this pattern may reflect an active coping style, it is unlikely to be effective in promoting good emotional adjustment.

The issue of amount and type of coping strategies actually utilized by children of divorce, and the effectiveness of those strategies with respect to emotional adjustment outcome measures has yet to be addressed empirically. It would be interesting to extend Plunkett and Kalter's task to a group of children of divorce and to qualitatively compare the responses between the sexes. Unlike the study done by Plunkett and Kalter which involved a sample of children from intact families, such an investigation would access information about coping preferences from a group of children who have actually experienced parental divorce.

Further evidence to support the contention that boys react differently than girls to the stress inherent in parental divorce was provided by the work of Hess and Camara (1979). In addition to the finding that interparental conflict was associated with emotional maladjustment in latency age male children of divorce, Hess and Camara reported that parental discord was positively related to uncontrolled behaviour in these boys, and only slightly (but not statistically significant) to overcontrolled behaviour in girls. Since uncontrolled behaviour is likely

to elicit negative responses from adult caretakers thereby creating additional stress and conflict in the environment, the male child's uncontrolled response to stress may act to perpetuate a vicious circle of conflict and misbehaviour in his home. Ultimately, this dynamic may become functionally independent of the interparental conflict from which it originally was thought to have arisen.

A study demonstrating sex differences in cognition and adjustment of children of divorce was completed by Krantz, Clark, Pruyn, and Usher (1985). A sample of late latency age (8 1/2 to 12 years) children of separation and divorce were asked to appraise parental divorce and potential coping behaviours, while parents and teachers rated the children on prosocial behaviour and academic performance. Maladaptive responses were defined as those which indicated pessimism or catastrophizing about divorce outcome, non-acceptance of the divorce, or negative evaluation of the divorcing family or situation. Adaptive appraisals and strategies were assumed to be reflected by active coping, optimism, and objectivity. Data indicated that, for boys, adaptive appraisal of divorce and choice of an adaptive coping strategy was found to be positively correlated with appropriate behaviour in the home and at school, although it was unrelated to academic performance. There was no consistent pattern of relationships between cognitive appraisals and behavioural or academic adjustment for girls.

The results of Krantz et al.'s study supported Plunkett and Kalter's (1984) conclusion that male children prefer active coping strategies over passive acceptance of parental divorce. Further, these results suggested that, when boys choose adaptive coping rather than the maladaptive

strategies demonstrated by Wallerstein and Kelly (1980), sex differences in adjustment may disappear. Interestingly, the lack of a relationship between coping strategies and adjustment in girls suggests that, perhaps, girls do not require structured coping behaviours in order to maintain a reasonable degree of adjustment in the face of parental divorce. The observed sex differences in adjustment as a function of the use of coping strategies tentatively suggests that boys may be less able to cope with the stresses engendered by parental divorce than girls. Consequently, boys may need the added structure provided by coping strategies in order to deal with the divorce.

The logical extension of the "environmental stress and coping" research supports Hetherington's (1979) hypothesis that high levels of environmental stress contribute to adjustment problems in children of divorce, and that male children of divorce display more adjustment problems than do girls because they experience higher levels of stress. This hypothesis, and Wallerstein and Kelly's (1980) alternative hypothesis which postulates that adjustment problems of children of divorce are due to developmental vulnerability will be examined next.

Theoretical Explanations of Sex Differences

Although a substantial body of research has demonstrated that sex differences in adjustment of children of divorce are a relatively reliable phenomenon, there is little empirical work investigating the factors underlying these differences. Two major hypotheses, one postulating the dominant role of intrapersonal factors and the other suggesting that environmental variables and stresses lie at the root of sex differences,

have been developed to explain the tendency for boys to be more adversely affected by divorce than girls. Wallerstein and Kelly (1980) argued for the individualistic perspective, suggesting that male children are developmentally more vulnerable to the stresses inherent in divorce than are girls. On the other side of the coin, Hetherington (1979, 1984) contended that the male child of divorce suffers a higher level of environmental stress than does his female counterpart. It is critical to note that, while both of these arguments have been developed from the existing literature on sex differences in the adjustment of children of divorce, neither has undergone empirical trial. Since the models lack scientific support, they must be considered speculative.

Environmental Stress

Hetherington (1979, 1984), Hetherington et al. (1978, 1979, 1982), and Peterson, Leigh, and Day (1984) have proposed a general crisis model to account for children's reactions to parental divorce. On the basis of work by Felner, Stolberg, and Cowen (1975), Rutter (1979a), and Hodges, Wechsler, and Ballantine (1979), Hetherington et al. have argued that divorce is a process involving multiple stressors including inter and intra personal conflict, loss of significant others, and physical and social environmental change. Long term stresses were thought to involve loss of or alterations in social and financial support, increased salience in the child's life of the custodial parent, and decrease in availability of the non-custodial parent. Since divorce may be presumed to be a process spanning a temporal continuum rather than a discrete time limited crisis event, Hetherington and associates suggested that the stresses inherent in

the situation build up to a cumulative stress. It was the combined stressor effect which was postulated to result in emotional, social, behavioural, or somatic disturbance in the child. With respect to the sex differences observed in the emotional adjustment of children of divorce, Hetherington (1979, 1984) has argued that boys experience more frequent and more severe environmental stress than do girls in divorced households, and therefore, that boys have higher levels of cumulative stress. Since emotional maladjustment was postulated to be a direct function of amount of cumulative stress present in the child's life, it follows that more boys than girls should be observed to have adverse reactions to divorce, and that boys should exhibit more severe behavioural disturbance.

Although Hetherington's model has not been subjected to empirical validation, the existing research on children of divorce suggests that it is a viable explanation for the behavioural anomalies often observed in these children. The argument that divorce is a multidimensional process has been supported by the foregoing review of the literature on sex differences. The work of Kalter and Rembar (1981), Guidubaldi et al. (1983), and Hetherington et al. (1985) clearly demonstrated that the hypothesized effects of divorce on children may be mediated by the temporal parameters inherent in the situation. Age of child at time of parental split, age of child at time of assessment, and time elapsed since parental split have been shown to be predictive of children's adjustment. Exactly how far ahead in time these effects persist is not yet known. It is equally difficult to pinpoint the exact beginning of the divorce process and to determine at what point the parental divorce began to have detrimental effects upon the children. Certainly, the award of the final

divorce decree does not define the beginning of the process; it makes intuitive sense to argue that the divorce process extends backward in time at least as far as the time of parental separation. However, even this point does not adequately define the beginning of the divorce process for the child and the family. Hodges et al. (1979) have demonstrated that interparental conflict prior to the separation is an accurate predictor of the child's later adjustment to divorce; it is rarely possible to specify when the conflict which led to divorce began. It seems clear, therefore, that divorce is a process which extends for an undefined period of time into the past and future of the child of divorce.

Research evidence also supports the contention that divorce is multidimensional in terms of both stressors and effects. The stressors inherent in divorce have been shown to take many forms. Overall interparental conflict both before and after separation contributes to stress in the child's life (Emery, 1982), as do disputes surrounding custody (Hauser, 1985; Johnston, Campbell, & Mayes, 1985; Steinman et al., 1985), changes in socioeconomic status of the custodial family (Colletta, 1979; Hetherington, 1979; Hoffman, 1980), changes in the child's relationships with one or both parents (Amato, 1981; Copeland, 1985b; Jacobson, 1978; Kelly, 1981), lowered cognitive and social stimulation in divorced families (MacKinnon, Brody & Stoneman, 1987), and changes in the physical and social environments of both children and parents (Saunders, 1983). Furthermore, the nature of these stressors is such that they cannot easily be dealt with singly. By virtue of the fact that all are process rather than discrete variables and thus may have enduring effects, divorce related stresses may indeed become cumulative even if the individual

stressors do not manifest simultaneously. Rutter (1979a) and Hodges et al. (1979) have demonstrated that cumulative stresses of the sort described are more strongly associated with psychopathology in children of divorce than are single discrete stressors.

With respect to the issue of multidimensionality of divorce in terms of effects, it is apparent from the previous review of the literature that parental split is associated with children's disturbance at the social, cognitive, emotional, and behavioural levels. Additionally, it seems that personality factors and physical health may also be affected. Recent longitudinal evidence by Block et al. (1986) seems to suggest that personality characteristics of children of divorce (especially boys) may change subsequent to divorce. Guidubaldi and Cleminshaw (1985) have related parental divorce to the classic stress literature of Holmes and Rahe (1967) by demonstrating a relationship between parental divorce and physical health of children. It may be concluded that divorce is associated with disturbance at almost every level of the child's daily life.

In an effort to explain the observed sex differences in the adjustment of children of divorce, Hetherington et al. have extrapolated their general stress model to speculate that male children of divorce may experience higher levels of stress than do females. Given that no existing investigation has directly measured and compared environmental stressors for boys and girls, Hetherington and associates' argument is empirically tenuous. Their contention is supported most directly by the work of Santrock (1975) and Santrock and Tracy (1978) which indicated that boys in divorced households receive less nurturance, support, and positive regard from teachers and custodial parents than do girls.

Further support for the notion that male children of divorce experience more stress than do females is offered by Hetherington et al.'s (1978) finding that divorced mothers of boys tend to express more depression and dissatisfaction with their lives than do divorced mothers of female children. No data was reported for the mothers of children of both sexes. As Hetherington (1979) suggested, this phenomenon may expose boys to more parental aggression and frustration than is witnessed by girls, thereby providing a negative coping model or eliciting retaliatory aggression from the male child. A similar finding by Hetherington et al. (1985) indicated that, in the six years after divorce, divorced mothers and sons report more negative life changes which appear to be unrelated to the divorce than do comparable intact families or divorced families with female children. This suggests the presence of an inflated level of ambient general stress in the lives of male children of divorce.

Finally, Hetherington et al. (1978) noted that more relationship problems between mothers and sons were found in divorced families than in intact families; these differences were not as prominent for girls. A related issue is specific to maternal custody families where the male child may be under pressure to assume the role of the 'man of the house' and to take on the responsibilities of the absent father. This is not inconsistent with the finding that divorced mothers reinforced their male children for exaggerated sex role behaviour (Biller, 1969; Biller & Bahm, 1971; Santrock, 1975). In either case, it may be argued that parental pressure for the male child to 'be a man' is likely to be stressful for the boy.

Indirect support for the contention that male children of divorce suffer more stress than female children is provided by the marital discord literature. Studies by Block et al. (1981) and Hess and Camara (1979) indicated that male children react to marital turmoil with undercontrolled behaviours such as aggression and non-compliance, while girls cope by becoming overcontrolled. Intuitively, it would seem logical that the inappropriate and antisocial behaviour exhibited by boys is likely to elicit more censure than sympathy from parents and teachers. This conclusion is consistent with Santrock's (1975) and Santrock and Tracy's (1978) finding that male children of divorce receive little emotional support from others and are perceived negatively by parents and teachers.

Hetherington et al. (1978) and Emery (1982) have contended that the key element in determining the degree to which interparental conflict affects children of divorce is the amount of hostility actually witnessed by the child. Similarly, Rutter (1979a) has argued that unless the child witnesses overt conflict between the parents, conflict is not predictive of later psychopathology in the child. If this logic is reversed, it may be speculated that, since male children of divorce display more psychopathology than females, perhaps they witness more conflict between parents. Gassner and Murray (1969) reported that, in a group of neurotic children from intact homes, boys (who displayed more disturbance than girls) witnessed more conflict than did girls. Replication of this finding in a sample of children of divorce would lend a great deal of credibility to Hetherington's stress model.

In conclusion, it appears that Hetherington's argument that male children of divorce experience more stress than do girls has been

tentatively supported by some situation specific literature. While the contention that stress may be a contributing factor to the maladjustment of children of divorce is logically sound, the extension that boys are more stressed cannot be accepted until a specific empirical test of that hypothesis has been made. Furthermore, the body of literature indicating that intrapersonal factors such as age and sex of child also act to mediate the effects of parental divorce, suggests, that characteristics unique to the children themselves must also be considered. As has been argued by Wallerstein and Kelly (1980), intrapersonal factors specific to the child may play a critical role in mediating his or her adaptation to the change in family structure.

Developmental Vulnerability

Increased developmental vulnerability of males as compared to females is consistent across a wide range of physiological and psychological parameters. Male children are known to be at higher risk for a variety of pre, peri, and post natal complications and for the full range of childhood diseases (Rutter, 1970). From a psychological perspective, boys are at higher risk than girls for infantile autism, childhood psychoses, learning disabilities, and a plethora of other psychological disorders as reflected by their overrepresentation in clinical psychiatric populations (DSM-III, 1980).

Wallerstein and Kelly (1980) extended the notion of greater developmental vulnerability in males to the children of divorce literature by postulating that sex differences observed in the emotional adjustment of children of divorce reflects yet another dimension of the vulnerability

factor. They argued that the latency age child is functioning at the pre-operational or concrete operational levels of Piagetian development. At those stages of development, children are egocentric and unable to think in terms of abstract concepts (Ginsberg & Oppen, 1979). This developmental lack of maturity is thought to result in the child having a limited array of coping responses available when confronted by stressful situations such as a parental divorce. The lack of available coping mechanisms presumably makes the child more dependent on parents. Any subsequent disruption of the parent child relationship at this time is, therefore, likely to render the child vulnerable to stress. In the case of divorce, one parent is absent and the other may be preoccupied with coping with his or her own adjustment to the separation and may not have the time or the emotional resources to provide the child with the support needed, so the child is left with his or her own inadequate and immature coping mechanisms.

To this point, Wallerstein and Kelly's model accounts quite reasonably for the finding that children of divorce as a group exhibit more problems than children of intact families. To argue further that latency age boys show more adjustment problems because of greater developmental immaturity is something of a quantum leap, but some of the sex differences reported in the children of divorce literature suggest that the notion might not be entirely unreasonable.

The developmental immaturity model as it is applied to children of divorce in general was supported by Felner, Solner, and Cowan's (1975) finding that more disruptive behaviour is observed in latency age children of divorce than in children of other ages, and by Wallerstein and Kelly's (1976, 1980) observations that adolescents do not appear as adversely

affected by parental divorce as are latency age children. Wallerstein and Kelly argued that adolescents are cognitively more mature than latency age children and can, therefore make more realistic appraisals of their situations and choose from a variety of methods of coping. Because of their greater cognitive maturity, they were thought to be less dependent on parents and, indeed, the reliance of adolescents on peer groups for support and validation is a well documented phenomenon (Erickson, 1963; LeFrancois, 1976).

In support of their hypothesis, Kelly and Wallerstein (1980) Wallerstein and Kelly (1976) have found latency age children, especially boys, to be less able to appraise and choose coping strategies from the limited array of options open to them. Boys, in particular, tended towards more self recrimination, less self esteem, and more expressed need for father or for parental reconciliation than did girls or children above or below latency age. These observations were consistent with the notion that cognitive immaturity is associated with less adaptive coping behaviour and greater dependence on parents. Furthermore, reports of qualitative differences in adjustment problems across age groups (Brady et al., 1986; Wallerstein & Kelly, 1980) also suggest that children at different developmental levels respond differently to the stresses of parental divorce. The fact that more boys than girls were observed to display adjustment problems presumably mediated by developmental level lends credibility to Wallerstein and Kelly's argument that boys are less mature.

Other research which supports the contention that latency age boys have more problems with parental divorce as the result of cognitive immaturity includes the children of divorce investigations of Hoffman (1971), Santrock

(1975), and Kurdek and Berg (1983). Recall that, in the latter study, latency age boys were found to be inferior to girls on cognitive appraisals of parental divorce, while the former two investigations demonstrated cognitive immaturity vis a vis moral development in latency age male children of divorce. In the Hoffman and Santrock studies, comparisons were made only among male children from differing home environments. Consequently, these investigations are not in the position to support the specific part of Wallerstein and Kelly's hypothesis which would predict that girls show greater cognitive maturity than boys. Furthermore, nothing in Wallerstein and Kelly's model can account for the fact that there were discrepancies in cognitive development between boys from different types of homes. The model predicts differences in measures of adjustment, not in cognitive maturity which, presumably, should be reasonably consistent across a sample of latency age boys, regardless of parental marital status.

A final body of research which lends credibility to Wallerstein and Kelly's hypothesis is that of Plunkett and Kalter (1984) and Krantz et al. (1985) which indicated that boys and girls do indeed tend to use different coping strategies. Wallerstein and Kelly's model would infer that, since boys tend to show more overt adjustment disturbances in response to familial stress, the coping strategies which they use must be less effective than those employed by girls, thereby reflecting lesser cognitive maturity.

It appears that there is empirical evidence on which to base Wallerstein and Kelly's explanation of sex differences in adjustment of children of divorce. A major criticism of the model, aside from its lack of direct empirical support, is that its logic borders dangerously near circularity.

Specifically, developmental vulnerability is inferred from observed cognitive immaturity, but cognitive immaturity is said to result from developmental vulnerability. A third criterion variable against which both of these constructs may be defined would be useful in breaking the tautology.

A final issue to consider with respect to the explanatory models for adjustment problems and related sex differences in children of divorce is that the two existing hypotheses are not mutually exclusive. It is entirely possible that both may be valid, or that the apparent negative effects of parental divorce on children are a function of an interaction of developmental vulnerability and high stress levels. The latter notion is appealing insofar as it accounts for individual differences in response to parental divorce; not all latency age boys exhibit behaviour problems in the wake of parental divorce, and some female children appear more adversely affected than males. It may reasonably be argued that differing levels of developmental vulnerability among these children interact with differing levels of stress associated with parental divorce to produce individual variation.

Conclusion: The State of the Art

A substantial body of literature has demonstrated that, on a wide variety of social, cognitive, emotional, and behavioural measures, children of divorce perform significantly worse than their peers from intact families (Hetherington et al., 1979, 1982, 1985; Wallerstein & Kelly, 1980). Specifically, the group of children of divorce has been shown to display more aggression, antisocial and non-compliant behaviour, anxiety,

affective disturbance, and physical disorders than the general population of children. Such children perform less well in school and on measures of intellectual functioning and achievement, and the deviant behaviours often observed in the home frequently transfer to the school (Guidubaldi et al., 1983). They are overrepresented in clinical psychiatric populations and, even within the non-clinical population, children of divorce have been found to exhibit more adjustment problems as compared to children from intact homes. Many researchers have taken these results to indicate that the optimal situation for child development is a two parent family and that parental divorce is a causal factor in childrens' adjustment problems.

Comparative studies of the adjustment of children from divorced, intact, separated, widowed, and remarried homes have tested that conclusion. Overall, children of divorce have been found to be more disturbed than children from other home environments (Tuckman & Regan, 1966). Parental absence in general, particularly father absence, appeared to be predictive of childrens' adjustment problems, although greater effects were observed when parental separation was the result of divorce. The fact that children of divorce consistently displayed more adjustment problems than did children from other types of broken homes invalidated the notion that the change in family structure per se is the major mediating factor in psychological disturbance of such children. Rather, it implied that the divorced home environment contains specific elements conducive to the development of adjustment difficulties in the affected children.

Further refinements in research sought to identify environmental and individual factors which distinguished the divorced family as unique. Environmental stress, most notably problems with interpersonal

relationships within the custodial family and interparental conflict, were found to be critical factors (Emery, 1982; Farber, Felner, & Primavera, 1985). As a result of this finding, it was suggested that the probability of positive outcome in child rearing was maximized if the child was raised in a stable two parent family with minimal environmental stress (Emery, 1982). Since divorce is generally the result of increased environmental conflicts and stresses in the home, children of divorce can be argued to be at a disadvantage even before the parental split. The act of separation and the resulting upheaval in family life may compound the stress and precipitate adjustment problems.

The degree to which the child is disturbed by the parental divorce process has been found to be associated with a variety of intrapersonal and environmental factors. The critical elements of divorce adjustment appear to be age of child at time of divorce, elapsed time since parental split, sex of child, and socioeconomic status of the custodial household (Guidubaldi & Perry, 1984; Hetherington et al., 1979, 1982, 1985; Kalter, 1977). To briefly summarize the impact of these factors, it seems that poor adjustment tends to be most prominent in the first year to two years after the parental separation and is associated with divorce occurring early in the child's life. It has also been found to be related to a decrease in socioeconomic status and to the child's being male. Within the present context, sex of child is of particular importance. While few studies have directly tested the hypothesis that male children of divorce are more poorly adjusted than are their female counterparts, analysis of the data by sex has consistently demonstrated that boys are at a disadvantage. On all measures which have been used to evaluate the

adjustment of children of divorce, boys appeared to be more adversely affected than girls. Furthermore, significant interactions with age have been observed (Kalter, 1977); latency age male children appear more disturbed than boys of other ages or than girls of any age. Qualitative analysis of the data has indicated that adjustment problems are sex stereotyped, with boys exhibiting exaggerated masculine sex role behaviours, particularly aggression. Finally, boys appear to be less affected by parental divorce if post-divorce custody is awarded to the father or jointly to both parents (Clingempeel & Repucci, 1982; Shiller, 1986).

A number of explanations have been advanced to account for sex differences in the adjustment of children of divorce. Research evidence has indicated that male children experience less nurturance and positive regard than do females (Santrock, 1975), that they witness more parental conflict (Santrock & Warshak, 1979), that they are unable to access emotions other than anger (Bonkowski et al., 1984), and that they are encouraged by custodial mothers to display aggressive behaviour (Biller, 1969; Biller & Bahm, 1971, Santrock, 1975). From this array of results have emerged two theoretical models to account for sex differences. Hetherington (1979) has postulated that boys in divorced families experience higher levels of environmental stress than do girls, while Wallerstein and Kelly (1980) have suggested that male children of divorce are developmentally more immature than females and are, therefore, more vulnerable to the stresses inherent in parental divorce. Although each of these models has a certain amount of support from the literature, neither has been empirically tested.

A single major criticism of the entire body of children of divorce research casts doubt onto almost all of the related observations, conclusions, and hypotheses. Much of the existing research involves serious methodological weaknesses and confounds which threaten internal, external, and statistical conclusion validity. Study of the effects of divorce necessitates the use of quasi-experimental design and correlational analyses. In order for correlation coefficients and associated regression weights to be statistically valid, large sample sizes in comparison to the number of predictor variables used, and stable and reliable measures are mandatory (Lord & Novick, 1968; Mosier, 1951; Tabachnick & Fidell, 1983). However, most of the research examining children's reactions to parental divorce has utilized small sample sizes, large numbers of predictors, and outcome measures which were qualitative, unstandardized, or of unknown psychometric value. With respect to internal validity, few of the investigations reported have controlled for age, sex, or socioeconomic status of the child, either simultaneously or singly. Confounds of these variables and of temporal factors such as elapsed time since parental split reduce the credibility of any results or conclusions obtained from the affected studies. Finally, generalizeability of the research is poor due to lack of intact family comparison groups, and frequent use of clinical samples in the absence of non-clinical controls.

In conclusion, the gaps and flaws in the "children of divorce" literature suggest several directions for future research. Since the methodological flaws in the existing body of literature undermine the validity of the research, it is imperative that well designed and controlled investigations of the effects of divorce on children be

conducted. Given the limitations in the type of statistical manipulations which can be applied to naturalistic research, it is necessary to ensure the validity of correlational analysis by utilizing large sample sizes and reliable measures. Another factor to be considered in the design of future research is the control of mediating factors such as age, sex, and socioeconomic status of child, and elapsed time since parental split. Confounding of these variables has rendered many potentially valuable investigations functionally uninterpretable. Systematic, well controlled replication of previous findings would contribute greatly to the credibility of both previous results and explanatory models based on these results.

From a theoretical standpoint, it is important to verify that children of divorce are more disturbed than children of intact families, and that the identified mediating factors are indeed predictive of child adjustment. Later research should attempt to investigate the mechanisms by which these factors are presumed to influence behaviour. Sex differences in the adjustment of children of divorce should be systematically replicated and future research should attempt to explain this phenomenon. With respect to the issue of explanatory models, a major gap needing to be addressed is the lack of empirical support for Hetherington's and Wallerstein and Kelly's theories of the causes of adjustment problems of children of divorce in general, and in male children of divorce specifically. Hetherington's model begs for comparison of amount of environmental stress experienced by children of divorce versus children of intact families, and by male versus female children in both types of home environments. Wallerstein and Kelly's hypothesis may be more difficult to test inasmuch as measures of

developmental vulnerability do not exist. However, systematic and exhaustive testing of Hetherington's hypothesis may have implications for Wallerstein and Kelly's arguments. Specifically, if environmental factors are found to be unrelated to children's post-divorce adjustment, it may be inferred that intrapersonal variables or the interaction of intrapersonal and environmental variables mediate adjustment.

The Present Study

The present study attempted to address some of the issues outlined above. First, it attempted to systematically replicate the findings that children of divorce experience more behaviour problems than do children from intact families, and that male children of divorce are more poorly adjusted than their female counterparts. It further attempted to test Hetherington's environmental stress model by determining which of a variety of environmental factors predicted child behaviour across groups of male and female children of divorce and of intact families. With due consideration to methodological criticisms of previous research, appropriate control for age and sex of child, and time elapsed since parental split were employed, as were large sample size and standardized and reliable criterion and predictor measures. However, all evaluations of child behaviour and environmental conditions were obtained through maternal report, so any conclusions drawn from this data must be interpreted in light of potential reporter bias.

Hypotheses

The previous research and flaws in the existing literature supported a number of hypotheses within the present context. First, it was predicted that, collapsed across sex, children of divorce would display more behavioural problems on the criterion measure Child Behaviour Checklist (Achenbach & Edelbrock, 1983) than would children of intact families. Furthermore, it was expected that this effect would be found to be more pronounced for boys than for girls.

A substantial proportion of the literature on correlates of children's adjustment to divorce and Hetherington's (1979) stress model suggests that environmental influences acting as negative stressors in the child's life would be more predictive of behavioural disturbance than would factors which cause minimal or positive stress. Emery's (1982), Hetherington et al.'s (1978, 1982, 1985), and Santrock and Warshak's (1979) observation of environmental stresses in divorced homes suggested that high scores on the Conflict and Control scales of the Family Environment Scale (Moos, 1974) and low scores on the Cohesion, Expressiveness, and Organization scales, traditionality on the Attitudes Toward Women Scale (Spence, Helmreich & Stapp, 1973), and single parent custody indicate the presence of negative stressors. It was expected that multivariate regression analyses would indicate a significant predictive relationship between these factors and the dimension of behavioural disturbance on the Child Behaviour Checklist. If Wallerstein and Kelly (1980) are correct in their assumption that parental divorce renders latency age children more vulnerable to stress because half of the buffer system for coping with stress is absent, then it would be expected that the relationship between environmental stressors and

adjustment in children of intact families would be minimal since the latter group of children have both parents available to buffer such stress.

The final hypothesis was less empirical than exploratory. Previous investigations and speculations by Hetherington et al. (1979), Hetherington (1979), and Hess and Camara (1979) hinted that male children of divorce experience more environmental stressors than do their female cohorts. Empirical testing of those speculations was functionally equivalent to testing Hetherington's corollary argument that male children of divorce exhibit more behaviour problems than do girls because of higher levels of environmental stress. Based on the research from which Hetherington developed her stress model, it was predicted that male and female children of divorce would be differentiated by the negative environmental stressors on the Family Environment Scale and the Attitudes Towards Women Scale. Furthermore, the absence of sex differences in the adjustment of children from intact families would, according to Hetherington, suggest that no differences exist in degree of environmental stress experienced by male versus female children in such homes.

In summary, the hypotheses tested by the present study were:

- 1) children of divorce were more behaviourally disturbed than were children of intact families
- 2) male children of divorce were more behaviourally disturbed than were female children of divorce
- 3) degree of existing environmental stress was directly predictive of the adjustment of children
- 4) male children of divorce experienced more environmental stress than did female children of divorce.

METHOD

Subjects

Participants were recruited from among parents of children seen at the pediatric department of the Manitoba Clinic, a private general health clinic in Winnipeg, Manitoba, Canada. In order to sample the entire population of families of children who were at least 6 years but not yet 12 years old (latency age target range), questionnaire packages were distributed to all parents accompanying a child of that age on a visit to any of six pediatricians at Manitoba Clinic. Instructions contained within the questionnaire package designated the child being seen by the physician on that occasion as the target child, and the mother as respondent. Instructions further specified that if two children of the specified age range were brought in on that visit, the child closer to age 6 was to be the target child. Participation, as defined by the completion and return of the questionnaire package, was voluntary.

Eight hundred and thirty-one questionnaire packages were distributed and 401 were returned. This represents a 48.26% response rate. The returned questionnaires were screened into four groups: divorced family with male target child, divorced family with female target child, intact family with male target child, or intact family with female target child. Respondents were matched on age of target child and, within the divorced sample, on time elapsed since last parental separation. For the purposes of matching,

male children of divorce were arbitrarily selected as the criterion subjects. Comparison subjects from the other groups were matched with criterion children to within one month of age and to within one year of last parental separation.

Previous research has demonstrated that systematic variance among children from intact, divorced, widowed, and remarried homes (Tuckman & Regan, 1966), and physical, mental, or neurological dysfunction may contribute to children's exceptionality (Swanson & Willis, 1979). Consequently, any of the following factors were considered to be potential confounds and served as criteria for exclusion from the data pool: 1) target child assessed as or referred for assessment of learning disability, 2) target child with physical or intellectual handicaps 3) target child of a single parent who has never married or whose partner is deceased, 4) target children who are not the biological children of both parents, 5) any member of the family having previously experienced marital separation or divorce, 6) the existence of a new live-in relationship in the custodial home, and 7) male custodial parent. The final sample of target children was, therefore, from intact first marriage homes or divorced/separated first marriage homes. No distinction between children of divorced parents and children of separated parents was made, since the literature suggests that, when time since parental split is controlled, these children comprise a homogeneous group (Kalter, 1977; Tuckman & Regan, 1966). To avoid extraneous variation due to linguistic, ethnic, or cultural factors, only Caucasians whose native language was English were selected for this study. Twenty-six protocols were rejected on the basis of the foregoing exclusion criteria. An additional seven were discarded because the questionnaires

were incomplete or incorrectly completed. A breakdown of rejected protocols by reason for rejection is shown in Table 1. On the basis of 81 viable 'divorced parents/male child' profiles, a final matched sample of 324 protocols were obtained. Age of target children ranged from 6 years 0 months to 11 years 11 months with a mean of 8 years 4 months. Within the separated/divorced family sample, time elapsed since last parental split

TABLE 1
Breakdown of Rejected Protocols

Reason for rejection	Number of protocols rejected
Physically handicapped child	1
Single parent, never married	1
Widowed parent	3
Adopted child	4
Remarried family	10
Male respondent	2
Non English speaking family	2
Non Caucasian family	3
Incomplete protocol	4
Incorrectly completed protocol	3

ranged from 1 month to 8 years, with a mean of 2 years 3 months.

Materials

The questionnaire package consisted of an introductory covering letter outlining the purpose of the study and containing instructions for completion of the enclosed questionnaires, the Child Behaviour Checklist (Achenbach & Edelbrock, 1983), the Attitudes Towards Women Scale (Spence, Helmreich, & Stapp, 1973, 1978), the Family Environment Scale (Moos, 1974), the Thoughts About Self Scale, and a demographic information sheet assessing age and sex of target child, marital status of parents, and type of custody arrangement. The Hollingshead Two Factor Index of Social Position (Hollingshead, 1957; Hollingshead & Redlich, 1958) was incorporated into the demographic information sheet. All materials may be found in Appendix A.

The Child Behaviour Checklist (CBCL) is a 113 item checklist which assesses common child behaviour problems on a 3 point Likert type scale ranging from 0 (not true of my child) to 2 (very true or often true of my child). It yields T scores assessing dimensions of Social Competence and Behaviour Problems. Additionally, it provides scores indicating the degree to which the target child internalizes and externalizes problems, and separate scores tapping schizoid, depressive, uncommunicative, obsessive compulsive, social withdrawal, hyperactive, aggressive, and delinquent behaviours and somatic complaints. Within the present context, the Behaviour Problems T score was considered to be the major relevant dimension and was used as the criterion variable in the quantitative data analysis. Subscale scores were used in qualitative profile analysis.

The CBCL was standardized on a sample of 1300 children from a clinical population and 1300 children from a non-clinical population, all ranging in age from 4 to 16 years. Normative data is provided in terms of T scores, and is broken down by sex and by age (4-5, 6-11, 12-16). With respect to psychometric criteria, Achenbach and Edelbrock (1983) report excellent short term test-retest reliabilities for the major dimensions of the CBCL. At intervals of 1 week, test-retest reliabilities for the total Behaviour Problems Scale ranged from 0.89 to 0.97 depending on age and sex group; mean test-retest reliability was 0.91. In the combined sample, Behaviour Problem subscale reliabilities ranged from 0.61 to 0.96. Interrater reliability for the Behaviour Problems Scale was acceptable at 0.64. Construct validity of the CBCL has been established through cross-instrument validation with the Connor's Parent Questionnaire (CPQ; Connors, 1970). For boys in the 6 to 11 years age range, a correlation of 0.77 was reported between the CBCL Behaviour Problems Scale and the equivalent CPQ Problems scale. For girls in the same age range, the correlation between the two instruments was 0.91. All reliability and validity data reported were statistically significant at $p < 0.05$.

The Attitudes Towards Women Scale (AWS) short form is a 15 item questionnaire which evaluates the respondent's sex role attitudes along a continuum of traditionalism/liberalism. A four point Likert type scale assesses the individual's degree of agreement with each of the statements comprising the scale; each statement makes an assertion reflecting a traditional perspective or a liberal, pro-feminist viewpoint. Possible total scores range from 0 (traditional/conservative) to 45 (egalitarian/liberal). Total AWS score for the custodial parent was used

as an index of the degree to which the target child's home environment is sex stereotyped, and was used as a predictor of child's adjustment.

The AWS was standardized on a population of 527 college students. Factor analysis with principle axis rotation has shown the AWS to be unidimensional, and internal consistency, as indicated by a Cronbach's alpha of 0.89, is excellent.

The Family Environment Scale is a 90 item checklist which utilizes a True/False format to evaluate three major dimensions of the family's social environment. The Relationship dimension yields scores for Cohesion, Expressiveness, and Conflict, the Personal Growth dimension taps Achievement Orientation, Intellectual-Cultural Orientation, Independence, Moral-Religious Emphasis, and Active Recreation Orientation, and the System Maintenance dimension assesses Organization and Control. All 10 subscale scores were used as predictor variables.

Moos (1974), using the Kuder-Richardson Formula 20 statistic, reported internal consistencies for the 10 subscales ranging from 0.64 (Independence) to 0.79 (Moral-Religious Emphasis). Item subscale correlations ranged from 0.45 to 0.58 for Independence and Cohesiveness, respectively, while test-retest reliability varied from 0.68 on Independence to 0.86 on Cohesiveness.

The Hollingshead Two Factor Index of Social Position determined a family socioeconomic status score based on education and occupation of the primary wage earner in the household. The primary wage earner is defined as the individual who brings the most money into the home. The Hollingshead procedure assigns a numerical value to each of seven positions on both

occupational and educational continua. Occupations are divided into 1) executives and major professionals, 2) managers and minor professionals, 3) administrative personnel or semi-professionals, 4) clerical and sales workers and technicians, 5) skilled workers, 6) semi-skilled workers, and 7) unskilled workers. Executives are assigned a score of 7, and the score is decremented by one unit per occupational position until a score of 1 for unskilled workers is reached. Educational level is evaluated in a like manner and is hierarchically arranged as follows: 1) graduate degree assigned a score of 7, 2) undergraduate degree or technical diploma, 3) partial college or university training, 4) high school graduation, 5) partial high school, 6) junior high school, and 7) less than seven years of schooling, assigned a score of 1. Respondents are simply asked to indicate which categories of education and occupation characterize the primary wage earner.

The index of social position is calculated by multiplying factor scores with factor weights and summing the products. Social Position Index may be interpreted along a continuum ranging from a score of 11 indicating lowest social position, to 77 which represents the highest possible social position. Alternatively, the continuum may be subdivided into five social classes. Social Class I is defined by scores in the 61 to 77 range, Class II by scores in the 44 to 60 range, Class III by scores in the 28 to 43 range, Class IV by scores in the 18 to 27 range, and Class V by scores in the 11 to 17 range. Within the present context, statistical analysis was facilitated by using the continuous rather than the discrete class scores.

The Demographic Data Sheet designed for this study elicited information about the target child's age and sex, parental marital status, type of

custody and time elapsed since last parental separation. These variables were entered into the data analysis as predictors of child adjustment. Also, questions about occupation and education of the primary wage earner were incorporated into the Demographic Data Sheet, and were used to derive the Hollingshead Index of Social Position for the respondent families. Finally, the questionnaire also served a screening function by requesting information which allowed the scorer to determine if the respondent or the target child met any of the exclusion criteria outlined earlier.

It was decided that the questionnaire package would be set up in such a way that questions about child demographics would be found at the beginning of the battery while information about family and respondent demographics would be requested at the end. The rationale for this organization was that placement of the child demographics questions at the beginning of the battery would serve to create a cognitive set focusing on the target child rather than the family or the respondent. For the same reasons, the respondent-focused Thoughts About Self questionnaire was always placed near the end of the package, just ahead of the family demographics section. In order to control for possible order effects, the remaining questionnaires (Family Environment Scale, Child Behavior Checklist, and Attitudes Towards Women Scale) were completely counterbalanced with respect to the number of questionnaire packages distributed. Given the need to meet the other primary subject matching criteria outlined earlier, it was not possible to fully counterbalance order of the returned questionnaires across the four groups of children. That is, groups were not matched on order of questionnaires. However, repeated measures analysis of variance performed on the data of those subjects used in the study indicated that order of presentation of questionnaires had no effect on FES, CBCL, or AWS scores.

Design

A quasi-experimental design was employed in order to obtain data on children's emotional adjustment and on 18 predictor variables naturally occurring in the environment of the target children. The design completely crossed sex of target child with marital status of parents. The Behaviour Problems T score served as the criterion variable, and predictor variables included age and sex of target child, marital status of parents, time elapsed since parental split, type of custody of target child, the Attitudes Towards Women traditionality score for the respondent parent, maternal score on the Thoughts About Self Scale, the Hollingshead Index of Social Position (ISP), and all ten subscales of the Family Environment Scale.

Procedure

Prior to implementation of the investigation, the clinic receptionists who were to distribute the questionnaire package were briefed as to the procedures to be followed, and they were given written copies of procedural details and exclusion criteria for reference purposes. Receptionists distributed the questionnaire packages to each parent bringing in a child who was at least 6 but not yet 12 years old, unless that child or the custodial parent was known to meet one or more of the exclusion criteria outlined earlier. Only those individuals known by the receptionists to be in violation of the age or exclusion criteria did not receive the questionnaire package. If there was any doubt, the receptionist was instructed to err in favour of maximizing the potential subject sample and to give the package to the parent in question. The completed demographic

data sheet included in the returned packages contained information which allowed inappropriate respondents to be screened out upon receipt of the completed questionnaires. In order to give the parents some context for the study, receptionists were asked to inform parents that the survey was part of a University of Manitoba research project and that further details were to be found in the introductory letter contained in the package. Parents were also prompted to complete the questionnaires and to return them via the enclosed stamped, addressed envelope as soon as possible.

Questionnaire packages were numbered and a master list kept against which returned packages were checked, thereby allowing the calculation of a percentage response rate. Given the sensitive nature of the information requested, it was felt that absolute confidentiality of respondents was of first priority, so there was no master list of which questionnaire package went to which family, and no personal identifying information was requested from respondents. All potential respondents were verbally prompted by the receptionists on subsequent visits to the clinic, but otherwise, unreturned questionnaires were considered lost.

RESULTS

Analysis of variance was used to test the hypotheses that (i) children of divorce, as a group, display more behaviour problems than do children from intact families, and (ii) male children of divorce exhibit more behavioural disturbance than do their female counterparts. The first hypothesis was unequivocally supported; main effects for marital status of parents was significant at $F(1,320)=16.39$, $p < .001$. The main effect for sex of child neared but did not achieve significance with $F(1,320)=3.37$, $p=.067$. Table 2 displays group mean CBCL scores and reflects the tendency for males to show more behaviour problems than females. Interaction of sex of child by parental marital status did not reach significance with $F(1,320)=1.67$, $p=.196$, thereby failing to support the hypothesis that male children of divorce are more disturbed than female children of divorce. Examination of group mean CBCL scores reflects a non-significant tendency

TABLE 2
Mean Group Child Behaviour Checklist T scores*

	Divorced	Intact
Male	57.43	52.19
Female	54.36	51.65

*clinical cutoff score = 63

in the predicted direction.

Separate stepwise multiple regression analyses using a forward stepping procedure were employed to determine the relationships existing between CBCL behaviour problems scores and environmental predictor variables for each group of children. All variables were entered into the analysis with the exception of sex of child and marital status of parents. Time elapsed since parental split and custody type were variables also omitted from the analysis of the intact groups' data. Group mean raw scores on environmental variables are shown in Table 3. Regression results, including multiple regression coefficients, beta weights, and tests of significance are shown for the significant predictor variables for each group in Tables 4 to 7.

Within the group of male children of divorced parents, custody type, Family Environment Scale dimensions of Cohesion, Control, Organization, and Moral-Religious Emphasis were found to be predictive of CBCL behaviour problems score. Religiosity and Control were directly related to behaviour problems ratings, while Cohesion and Organization were inversely correlated with CBCL score. Joint custody was associated with fewer behaviour problems than single parent custody. Table 4 summarizes these findings.

Behaviour problems in female children of divorce were primarily associated with familial Expressiveness, Control, Achievement Orientation and the socioeconomic status of the family as evaluated using the Hollingshead Two Factor Index of Social Position. Inverse relationships indicated that, as expressiveness, press for achievement, and socioeconomic

TABLE 3
Mean Environmental Variable Raw Scores by Group

Variable	Male		Female	
	Divorced	Intact	Divorced	Intact
FES-Cohesion	5.15	7.46	6.30	7.38
FES-Expressiveness	4.46	5.93	5.57	5.92
FES-Conflict	4.62	3.42	4.00	3.11
FES-Achievement	5.32	5.33	5.27	5.33
FES-Intellectual	4.57	5.96	5.10	5.98
FES-Independent	5.75	7.27	5.90	6.48
FES-Religious	4.31	5.54	4.16	5.73
FES-Recreation	5.46	6.19	5.67	5.72
FES-organization	5.16	6.15	5.26	6.20
FES-Control	5.43	4.73	4.91	5.11
Self Esteem	5.91	5.53	5.74	5.89
SES	49.80	56.15	52.38	51.08
Time since separation (months)	25.03	-	28.25	-
Attitudes Towards Women	34.23	34.15	35.35	34.85
<hr/>				
Range of scores: FES	1 - 10			
Self Esteem	0 - 12			
SES	11 - 77			
AWS	0 - 45			

status increased, behaviour problems decreased. A direct relationship

TABLE 4

Regression of Environmental Predictors Against Child Behaviour Checklist
Scores - Male Divorced

Variable	R	F	Sig F	Beta
FES-Cohesion	.5649	35.16	.000	-.5649
FES-Control	.6422	17.08	.000	.2244
FES-Organization	.6722	14.84	.000	-.2506
FES-Religious	.6945	13.23	.000	.2009
Custody Type	.6118	22.14	.000	-.2505

between increasing levels of control and behaviour problems was observed.
Table 5 summarizes the results of regression analysis for this group of

TABLE 5

Regression of Environmental Predictors Against Child Behaviour Checklist
Scores - Female Divorced

Variable	R	F	Sig F	Beta
FES-Expressiveness	.7340	89.94	.0000	-.7340
FES-Control	.8084	71.67	.0000	.4176
FES-Achievement	.8245	53.07	.0000	-.1664
SES	.8370	43.27	.0000	-.1456

children.

Three factors, Cohesion, Control, and traditionality/liberalism in maternal sex role attitudes (AWS), were found to be predictive of level of behaviour problems for male children of intact families. As may be

TABLE 6

Regression of Environmental Predictors Against Child Behaviour Checklist Scores - Male Intact

Variable	R	F	Sig F	Beta
FES-Cohesion	.3780	13.01	.001	-.3780
FES-Control	.5781	12.72	.000	.2410
AWS	.5269	14.79	.000	-.3670

inferred from Table 6, high levels of cohesion and liberalism predicted better adjustment, while high levels of control were associated with increased behaviour problems.

Finally, degree of Conflict in the home environments of female children of intact families was directly related to incidence of behaviour problems in these children while Intellectual Orientation and presence of non-traditional sex role attitudes were inversely predictive of behaviour problems. Table 7 summarizes these results.

TABLE 7

Regression of Environmental Predictors Against Child Behaviour Checklist Scores - Female Intact

Variable	R	F	Sig F	Beta
FES-Intellectual	.1871	17.96	.000	-.4326
FES-Conflict	.3315	12.56	.000	.2795
AWS	.2622	13.68	.000	-.2759

Discriminant analyses yielded three canonical discriminant functions which differentiated among the four groups of children. All Family Environment Scale scores, Attitudes Towards Women scores, and a score reflecting maternal self esteem (SELF) were entered into the analysis. Minimum tolerance level was 1.00 and the discriminant method involved stepwise entry of each variable with minimization of Wilks' Lambda as the entry criterion. The first function generated accounted for 82.68% of the variance in predictor scores, while Function 2 accounted for 11.57% of the variance, and Function 3 accounted for 5.75%. Factors included in the discriminant functions were Cohesion, Expressiveness, Independence, Moral-Religious Emphasis, Recreation Orientation, maternal self esteem score, and AWS score, listed in decreasing order of importance for group classification. Standard discriminant coefficients are shown in Table 8.

The discriminant functions were found to have an overall accuracy of 42.28% in correctly classifying children into their actual groups.

TABLE 8

Standardized Discriminant Coefficients for Function Discriminating Children
by Sex and Parental Marital Status

Predictor	Standardized Discriminant Coefficient
FES-Cohesion	.7598
FES-Expressiveness	.2055
FES-Independence	.1904
FES-Religious	.4319
FES-Recreation	-.2417
Self Esteem	-.2419
AWS	.2242

Proportion of children correctly classified ranged from a high of 51.9% for male children of divorce to a low of 34.6% for female children of divorce. Table 9 shows a summary of actual versus predicted group membership. As can be discerned from Table 9, the discriminant function tended to cluster children together on the basis of parental marital status. That is, when it misclassified a child, it tended to put him or her in the group of the opposite sex, but the same family structure. Consequently, male children of divorce were most often mistaken for female children of divorce and vice versa, while male children from intact families were most often misclassified as females from the same family structure and vice versa. Furthermore, detailed examination of group and variable means (Table 3) indicates that children from intact homes experience higher levels of

TABLE 9
Discriminant Classification Results (percent)

Actual Group	Predicted Group			
	Male		Female	
	Divorced	Intact	Divorced	Intact
Male - Divorced	51.9	13.6	24.7	9.9
Intact	12.3	39.5	21.0	27.2
Female - Divorced	29.6	19.8	34.6	16.0
Intact	13.6	29.6	13.6	43.2

Cohesion, Expressiveness, Independence, Moral-Religious Emphasis, and family Recreation than do their peers from divorced homes. No consistent trends were observed for self esteem and AWS scores.

Discriminant analyses applied to only the sample of children of divorced parents yielded a single discriminant function with an overall classification accuracy of 65.0%. Discriminant factors were, in order of weight, Cohesion, Expressiveness, Independence, Organization, maternal self esteem, and custody type. Standard discriminant coefficients are shown in Table 10. A summary of actual versus predicted groups membership is given in Table 11. Examination of means indicates that families of females were rated higher on Cohesion, Expressiveness, Independence, and Organization. Parents of male children tended to score higher on the self esteem scale

TABLE 10

Standardized Discriminant Coefficients for Function Discriminating Male
from Female Children of Divorce

Predictor	Standard Discriminant Coefficient
FES-cohesion	-.8654
FES-Expressiveness	-.5135
FES-Independence	.3384
FES-Organization	.4143
Self Esteem	.2874
Custody Type	.3907

TABLE 11

Discriminant Classification Results (percent)

Actual Group	Predicted Group	
	Male	Female
Male	64.6	35.4
Female	34.6	65.4

and, on average, males were found to be in joint custody more often than females.

DISCUSSION

Prior to detailed discussion of the results of the present study, it is necessary to briefly consider the methodological limitations of the study in light of which all subsequently discussed results and conclusions must be considered. Within the present context, many of the criticisms directed at earlier work have been circumvented. The use of a large sample and standardized and reliable assessment instruments eliminated statistical problems which impaired the validity of earlier results. Similarly, screening out individuals belonging to systematically 'different' groups (eg. remarried or widowed families or families with chronically ill members), and including an intact family comparison group matched with the children of divorce on age, sex, and socioeconomic status avoided methodological confounds. The issue of respondent bias was, however, only tangentially addressed; while sex of parental respondent was maintained constant across all groups, the work of Santrock and Tracy (1978) suggested that divorced mothers may be more likely than women from intact marriages to attribute negative behavioural characteristics to their children. Indeed, if this was the case, then it is possible that this factor could have introduced a source of systematic between-groups variation aside from parental marital status. However, Beck, Rush, Shaw, and Emery (1983) suggested that negative attributions like those under consideration are functionally related to depressed mood states (particularly, low self esteem) on the part of the respondent. The present study did address this issue by assessing respondents' feelings about self, and it was found that

self esteem was not predictive of child behaviour problems, did not differentiate groups, and did not covary with respondent's marital status. Extrapolation of this finding would suggest that respondents' idiosyncratic tendencies to negative or positive attribution did not introduce systematic extraneous variation into the parental marital status/child behaviour relationship under examination. However, the fact remains that evaluation of child behaviour and of the environmental factors under which the child operated were taken from single, potentially biased respondents, and were unverified by either the children themselves or by objective observers. Consequently, any conclusions made on the basis of this data must take into account that they were based on maternal perception and, as such, may not have reflected the childrens', teachers', or other parent's views of the situation. To some extent, however, the use of maternal report has some clinical validity inasmuch as maternal report is often a primary source of information about presenting problems when a child is first seen for treatment of behavioural problems, especially in divorced families (Fulton et al., 1986).

The present study successfully replicated previously reported findings that latency aged children of divorce exhibit more behavioural aberrations than do their counterparts from intact families. Despite the methodological flaws affecting many of the earlier studies, it seems that their results accurately reflected a systematic phenomenon wherein parental divorce is related to subsequent behaviour problems with children. The fact that the effect was observed even in the presence of the many confounds and statistical inadequacies of earlier research is testament to its robustness. Not only does the current finding corroborate previous

empirical investigations of the impact of parental divorce on children, but it also provides empirical support for the excellent qualitative observations of Wallerstein and Kelly.

Furthermore, given that the present subjects' average elapsed time since parental split was just over two years, the study has some implications for the issue of long term effects of divorce. Specifically, the continued discrepancy between children of intact families and children of divorce, even at more than two years after the parental split, is indicative of the relatively long term persistence of the adverse effects of parental divorce on children. Since regression analysis indicated that time elapsed since parental split had no significant predictive power vis a vis child behaviour problems, little change in child behaviour problems could be expected from the early days after parental split to at least two years later. Theoretical explanations for the apparently consistent, robust, and persistent adverse effects of parental divorce will be discussed in the context of the existence and salience of various predictor variables.

Main effects for gender of child approached significance and examination of group means displayed in Table 2 indicates that male children tended to exhibit more behaviour problems than did females, regardless of family structure. While one obvious explanation of this finding may imply a biologically mediated male predisposition to behavioural disturbance, it can justifiably be argued that the sex differences were a function of different socialization patterns between male and female children. The overrepresentation of boys in clinical populations is well documented, as is the general tendency for greater male vulnerability to physical and psychological ills. This research, especially those studies demonstrating

higher prevalence of infant mortality and childhood diseases in males, is strongly supportive of a gender mediated developmental vulnerability hypothesis. However, the child rearing studies of Biller (1969) and Biller and Bahm (1971) point to the notion that higher levels of aggressiveness and 'acting out' behaviour in boys are functionally related to differing role expectations taught to boys and girls during socialization. Girls are traditionally expected to display less overtly aggressive types of 'acting out' and more gender prevalent problems such as somatic complaints or psychological disturbance reflecting an internalizing style of coping. Within the present context, the nature versus nurture dichotomy is paralleled by Wallerstein and Kelly's developmental vulnerability hypothesis versus Hetherington's environmental stress model. As shall be discussed at a later point, it is the present author's contention that neither model fully accounts for childrens' reactions to parental divorce or for the sex differences in adjustment observed in previous studies. Indeed, it would be naive to argue that a child's reaction to his parents' marital breakup is mediated only by his or her specific developmental/physiological vulnerabilities or only by the prevailing environmental factors present in the home at the time of the divorce. An ecological perspective, that is, the conceptualization of the individual actively participating in an ongoing reciprocal relationship with the environment may be more appropriate. This argument, which will be developed more fully as results are discussed, holds that parental divorce represents ongoing environmental stress for the child and that the manner in which the child responds to any given aspect of that stress is a function of his or her own physiological or psychological strengths and weaknesses. More succinctly, it will be argued that environmental stress and developmental vulnerabilities interact to produce behaviour.

Environmental Predictors

The expectation that degree of reported child behaviour problems would be associated with high levels of negative familial/environmental stressors and low levels of supportive influences was generally fulfilled. Specifically, high levels of authoritarian control were found to be related to greater numbers of behaviour problems, regardless of parental marital status, while high levels of cohesiveness in the nuclear household were inversely predictive of behaviour problems only in male children. Similarly, traditional maternal sex role attitudes predicted behaviour problems only in children from intact families. No consistent patterns were observed across groups for the other environmental factors examined, but rather each group of children appeared to have its own idiosyncratic set of predictors. The environmental predictor variables found to be relevant shall each be discussed separately.

Control. Multiple regression analysis indicated that the Family Environment Scale dimension of Control was directly predictive of behavioural problems in all groups of children except females from intact families. Examination of item content for this scale suggests that it reflects a rigid, rule bound, authoritarian family structure. Baumrind (1968, 1972) identified three types of child rearing practices including i) the authoritarian style emphasizing obedience, discipline and rules, ii) the permissive style emphasizing democratic family process, nonconformity, and independence, and iii) the authoritative style emphasizing the development of child autonomy within the confines of parental rules. The Control dimension of the FES appears to be most similar to Baumrind's authoritarian process. Utilizing the CBCL as a criterion measure and

Baumrind's categories of child rearing practice as predictors, Guidubaldi, Perry, and Nastasi (1987) reported systematic differences in child rearing styles used by parents of boys as compared to girls and variations in childrens' reactions to differing child rearing styles. They found that parents of male children tended to use an authoritarian approach, while parents of girls tended more towards the permissive style. Further, it was reported that, with respect to the issue of post divorce adjustment as assessed by the CBCL, the authoritarian style was associated with greater behavioural disturbance in boys; no consistent relationship between authoritarianism and female children was observed. Permissive parenting was inversely related to male adjustment, but directly related to female adjustment. The present study is supportive of the Guidubaldi et al. results particularly as they relate to differential styles of parenting as a function of gender of child and to the impact of authoritarian versus authoritative parenting processes. With respect to the former issue, examination of the set of predictors for each group of children reveals that boys' behaviour was predicted primarily by factors contributing to the System Maintenance dimension of the FES, while girls' behaviour was associated with factors comprising the Personal Growth and Relationship dimensions. The males' greater responsiveness to factors such as Control and Organization suggest that the degree and type of structure imposed by parents is an important mediator of their behaviour and is a salient factor in their lives. According to Baumrind, structure is a critical component of the authoritarian parenting style, and the present results support Guidubaldi et al.'s assertion that authoritarian structure is a major influence in the lives of male children. The females' responsiveness to Relationship factors like Expressiveness and Conflict and to Personal

Growth factors like Achievement Orientation and Intellectual Orientation indicates greater impact and salience of a permissive or authoritative style as defined by Baumrind.

As regards the impact of different parenting styles, both Guidubaldi's and the present author's research indicate that the use of an authoritarian style is an issue in families with male children, and the present study extends the Guidubaldi et al. finding by suggesting that authoritarian control may have detrimental effects on the behaviour of male children, regardless of parental marital status. As with Guidubaldi and associates' study, the present group of female children showed mixed results with respect to the issue of authoritarian parenting as reflected by high levels of Control in the home. Girls from divorced homes appeared to react, like males from either family structure, with increased behaviour problems; girls from intact families appeared relatively unaffected by authoritarian parenting styles inasmuch as Control was not a significant predictor of their behaviour. Interestingly, scores in the Expressiveness, Achievement, Intellectual, and traditionality/liberalism (AWS) dimensions, all of which may be construed as reflecting encouragement of non-conformity and child autonomy, were inversely predictive of females' behaviour problems scores. Similarly, Religious-Moral Emphasis which may tend to tap into a more conforming orientation was associated with high levels of behaviour problems in male children from broken homes. This set of results tentatively supports the Guidubaldi et al. conclusions about the relative impact of differentiating parenting styles on childrens' behaviour.

The results of the Guidubaldi study were corroborated and extended by the present investigation and, collectively, the two studies have a number

of theoretical and clinical implications. Foremost, it appears that when authoritarian parenting styles are used with male children, they are associated with high risk of behaviour problems, regardless of home structure. However, the Guidubaldi et al. results suggest that permissive parenting may be equally detrimental with boys from divorced homes. Perhaps a fine balance between firm structure and encouragement of autonomy as reflected by the authoritative parenting style is most appropriate. The assertion that firm structure without control is important to positive adjustment is supported by the present finding that the FES dimension of Organization was inversely predictive of number of behaviour problems for male children of divorce. Clearly, future research is needed to address this issue more fully. For female children of divorce, permissive or authoritative parenting appears most desirable, as indicated by Guidubaldi et al.'s finding of a relationship between less structured parenting and positive child adjustment and by the current finding indicating that a more authoritarian style is associated with higher levels of behaviour problems.

At a theoretical level, the Guidubaldi et al. results that indicated a tendency towards the use of different styles of parenting with boys and girls, together with the present assertion that male behaviour problems are associated with high levels of Control, might be taken as support for Hetherington's hypothesis that male children of divorce are exposed to more stress than are their female counterparts. Specifically, it can be argued that the authoritarian style with its emphasis on rules and forcible conformity may be construed as an aversive environmental stressor. The findings that males experience more authoritarianism than do girls and that Control may be a negative stressor (as indicated by its relationship to

behaviour problems across child gender) suggest that male children of divorce do indeed experience more environmental stress than do females. Furthermore, it is possible to account for observed sex differences in behaviour problems by incorporating the concept of a type of negative reaction formation with findings of greater levels and salience of authoritarianism and Control in the homes of male children. It may be postulated that the pressure to conform and to accede to parental control provokes the oppositional 'acting out' reaction as a means of coping with that pressure. Because boys appear to experience more authoritarian parenting than girls, there is greater opportunity for the 'acting out' to occur. Hence, the apparent male/female differences on behaviour problems may be accounted for by a difference in an identified environmental stressor as opposed to gender mediated discrepancies in developmental vulnerability.

Finally, a question remains as to why only the group of girls from intact families in the present study appeared unaffected by the issue of Control in the nuclear household. If the environmental stressor hypothesis is espoused, it could be speculated that either there exists less Control in the homes of female children of intact families, thereby making response to this factor a moot point, or that there exists in the intact home some other environmental element which mediates the effect of authoritarianism on the child. Since the discriminant analyses to be discussed later did not implicate Control as a differentiating factor between groups, the former hypothesis is contraindicated. Furthermore, since there is no reason to suspect that female children from intact homes are less developmentally vulnerable than other children, it is reasonable to argue

that their apparent invulnerability to Control is functionally related to environmental rather than internal factors.

Custody Type. Consistent with the findings of Shiller (1986), Warshak and Santrock (1979) and others, custody type was found to be predictive of behaviour problems in male children of divorce. Specifically, it was found that joint custody was associated with lower behaviour problems scores, while single parent maternal custody was related to higher scores on the CBCL. No relationship between custody type and behaviour problems score was evident for girls from divorced homes. Previous research into the salient characteristics differentiating joint from single parent custody may help to account for the observation that boys reportedly do better under joint custody arrangements. Steinman et al. (1985) found that parents who successfully negotiated and maintained joint custody experienced and expressed minimal hostility and conflict directed at the ex-spouse, while parents who failed with joint custody and reverted to single parent arrangements exhibited high levels of overt hostility, lack of trust, and anger at their former partners. Steinman and associates' findings would suggest that the more positive adjustment of children in joint custody is not related to custody type per se, but rather is a function of lower levels of interparental conflict and more frequent positive contact between ex-partners than is experienced by children in single parent custody situations. This hypothesis was supported by Block et al.'s (1986, 1988) investigations of the relationship between parental conflict and child adjustment, and by Wolchik, Braver and Sandler's (1985) work demonstrating more frequent and better quality contacts between the child and the absent father in joint custody families. The fact that

families which succeed with joint custody arrangements appeared to have higher levels of cohesiveness, lower levels of conflict, and better overall emotional adjustment may be no accident. As Wolchik et al. (1985) pointed out, it is possible that the group of successful joint custody families forms through a process of self selection and, further, that the self selection is based on precisely those factors involving degree of conflict, cohesiveness, and general level of emotional well being of all family members. It can be argued that families which interact well after the divorce and who have minimal intrapersonal disturbance are more likely to tolerate or even make the best of the increased contact and co-operation necessitated by the joint custody arrangement. Higher conflicted families with more disturbed members may be less able to cope with the joint custody process and it may possibly exacerbate family tensions. For the latter group of families, joint custody may not be a viable option in the first place. If this is the case, these families tend not to be included in the studies of joint custody because the self selection process eliminates them from the subject pool. The point of this argument is that many of the studies which have found joint custody to be facilitative of post divorce child adjustment may have examined a highly biased sample of inherently well-functioning families. Without research to support it, the assumption that joint custody and single parent custody families comprise a homogenous group prior to divorce is fallacious; the apparent facilitative effect of joint custody may be an artifact of families which succeed at joint custody having always had and continuing to have more adaptive interpersonal functioning than those which eventually resort to single parent custody. In this case, the differentiating factor is family dynamics, not custody type.

The foregoing argument is largely speculative, but it raises critical questions for further research into child custody. Longitudinal studies of the type performed by Block et al. (1986; 1988) would be ideally suited to answer the question of whether joint custody versus single parent custody families are inherently different, prior to divorce, on factors of conflict, cohesion, and individuals' emotional adjustment. A second question to be addressed in future research concerns the fact that, as was discussed earlier, joint custody is a legal rather than a pragmatic concept and the label itself does not necessarily reflect a particular style of parenting, visiting arrangement, etc. It may well be the case that families who have a formalized single parent custody arrangement, as stipulated by the court, are spontaneously functioning in accordance with the ideals of joint custody, that is, co-operating with minimal overt interparental conflict and acting in the best interests of the child. If this is the case, the population of divorced families would fall into four subcategories defined by both their legal and functional custody status. Groups would include i) legally and functionally joint custody (successful joint custody as defined by Steinman et al.), ii) legally joint custody, but functionally single parent custody (unsuccessful joint custody as defined by Steinman et al.), iii) legally single parent custody, functionally joint custody, and iv) legally and functionally single parent custody. Of course, in order to study these proposed groups, it will be necessary to develop objective operational criteria for determining exactly what constitutes legal and functional joint versus single parent custody. Once the four groups can be differentiated on the basis of a set of hard behavioural criteria, it will be possible to make explicit the salient environmental and interpersonal factors which create the impression that joint custody is superior to single parent custody.

A final question relating to the custody issue concerns the fact that custody type was found to be unrelated to the behaviour of female children of divorce. This may be an artifact of the design of the present study inasmuch as the subject pool consisted exclusively of maternal custody single parent custody families and joint custody families where the child's primary caretaker was the mother. The socialization hypotheses summarized by Serbin (1980) and research by Santrock and Warshak (1979), Warshak and Santrock (1983), and Santrock et al. (1982) predicts that same sex pairings of child and primary caretaker are likely to be associated with lower levels of behaviour problems than situations in which there is a cross sex match. In the present study, female children had consistently reliable access to the same sex parent and, thus, would not have experienced the emotional disturbance which Santrock and associates have argued is consequent upon the absence of the same sex role model. Boys in this sample, on the other hand, all experienced the mother as the primary caretaker and, as indicated by mothers' answers to a questionnaire item asking about time spent with father, had lesser contact with their fathers than with their mothers. However, if as Wolchik et al. suggest, boys in joint custody situations have more frequent and better quality contact with their fathers than do boys in single parent maternal custody, then the postulated adverse effects of living with the opposite sex parent should be ameliorated to some extent for the joint custody group. The lower level of behaviour problems observed in male children in joint custody supports this conclusion. It might be speculated, on the basis of the foregoing argument, that custody type might have been predictive of the behaviour of female children of divorce if, in the present study, it had been possible to completely cross sex of child with custody type and to utilize both parents as respondents.

Conflict. Given the mass of previous literature which indicates that familial conflict was associated with child adjustment problems in children of divorce, it was surprising that the present study found conflict to be predictive of behaviour problems only in female children of intact families. Upon closer examination of the parameters of "conflict" as examined in the present investigation and other studies, an explanation for the current lack of predictive power of conflict in divorced families becomes apparent. Many of the previous studies implicating conflict as a mediator of child adjustment limited the construct to interparental hostility. Item content analysis of the FES Conflict scale used in the present study reveals that assessed conflict seemed to target ongoing conflictual relationships in the immediate household which, in the case of the children of divorce groups, did not include both parents. Therefore, the interparental hostility and conflict implicated in previous research was not assessed, at least for children from broken homes, in the present study. Differences in definition of "conflict" may account for the apparent discrepancy between the results of previous studies and the present research. Furthermore, comparing past and present findings about the impact of "conflict" on children of divorce in light of the present results and the foregoing argument suggests that parent/child or sibling conflict may have minimal impact on the behaviour of children in divorced families. If, as Steinman et al. and others have argued, interparental conflict is the differentiating factor in predicting whether or not a family will succeed with joint custody or resort to single parent custody, custody type may be considered as an index of interparental conflict within the present context. It follows that single parent custody may reflect high interparental conflict, while joint custody reflects lower levels of

conflict and, perhaps, higher levels of interparental accord. In light of this argument, the present finding that single parent custody is associated with high behaviour problems scores and joint custody is related to lower CBCL scores in boys from divorced homes may be rephrased in terms of a direct relationship between interparental conflict and behaviour problems. Incidentally, equating custody type and interparental conflict in the manner described makes the present findings relating FES Conflict and Custody type to behaviour problems consistent with previous research on the impact of conflict on childrens' behaviour. Furthermore, for the group of male children of divorce, the predictive power of interparental conflict as reflected by custody type and the lack of predictive power of familial conflict as represented by the FES Conflict score would suggest i) that two functionally distinct types of conflict exist, and ii) that the salient factor is interparental rather than parent/child or sibling conflict. This conclusion would be consistent with by the fact that the FES Conflict score was indeed found to be predictive of of behaviour problems in one of the intact family groups. By definition, the structure of the intact family necessitates the inclusion of interparental conflict into the aggregate score representing overall conflict in the nuclear family. The conclusion about the existence of qualitatively different types of conflict would have been stronger had the custody (interparental conflict) effect been consistent across both groups of children of divorce and the FES Conflict (family conflict) effect been consistent across both groups of children from intact families. In any case, the argument provides one plausible basis for future research attempting to differentiate the existance and impact of interparental versus familial types of conflict.

An attempt was made within the present study to directly assess interparental conflict prior to the divorce with the intent to determine if a relationship existed between long term process conflict and children's post divorce adjustment. Given Rutter's (1979a) and Hetherington's (1979) contention that the stresses engendered by parental divorce are cumulative, it would have been expected that a strong relationship should have been found between aggregate levels of stressful conflictual relationship between parents and high levels of child behaviour problems. Had such an effect been found, it would have provided significant support for the notion that divorce should be conceptualized as a long term process stressor, rather than as a time delimited crisis event. Unfortunately, the wording of the question evaluating the degree of pre-divorce overt conflict between parents was such that parents tended to answer in a dichotomous manner (either there was or there was not overt conflict prior to separation) and exact length of time during which such conflict existed was not specified exactly.

Cohesiveness. Cohesiveness was found to be predictive of lower levels of behaviour problems in male children, regardless of parental marital status, but was unrelated to the behaviour of female children. The author's conclusion was that there exists a systematic gender mediated difference in the child's response to family cohesiveness and that males tend to benefit from high levels of family support and accord. Guidubaldi et al. (1987) discovered that quality of family relationships, particularly the child's relationship with both parents, facilitated adjustment to divorce, and that this effect was especially evident for late latency aged males. The present finding, in which interpersonal support and family

accord were reflected by the FES Cohesion score, extends Guidubaldi and associates' conclusion by suggesting that high quality relationships in the entire nuclear household are particularly beneficial for male children. Why, however, does cohesiveness not appear to affect female children? If one accepts Wallerstein and Kelly's argument that girls are developmentally less vulnerable, then it could be speculated that the female's inherently greater resistance to negative physical and ecological stress might also reduce the impact of positive environmental influences such as family accord. Presumably, internal resources comprise a larger proportion of the female's response to the environment, thus rendering her minimally vulnerable to environmental variations. However, the male child, whom Wallerstein and Kelly presume to have greater developmental vulnerability, should have less internal resources for coping with the environment and would thus be more strongly impacted by both detrimental and beneficial environmental influences. Hetherington's environmental stress hypothesis would use the present finding to explain boys' generally higher behaviour problems scores as being the result of lower levels of cohesiveness in families with male children. As shall be described later, discriminant analysis indicated that there is no difference in Cohesiveness between sexes, but that Cohesiveness is a differentiating factor between groups based upon parental marital status. Since there appears to be no difference in degree of Cohesiveness between the sexes, but males appear more affected by Cohesiveness than females, the present finding can be taken as support for the Wallerstein and Kelly hypothesis that males are more vulnerable than females to environmental influences.

Traditionality/Liberalism. Respondents' (mothers') score on the Attitudes Towards Women Scale (AWS), or degree of maternal liberalism was found to be inversely predictive of behaviour problems for boys and girls from intact families, but was unrelated to the behaviour of children from divorced families. In other words, for children from intact families, liberal maternal attitudes towards sex roles were reported associated with fewer behaviour problems, while more traditional stereotypic attitudes were associated with higher levels of behavioural disturbance. This finding is not surprising in view of the argument that liberalism or non-conformity is a component of the authoritative and permissive parenting styles outlined by Baumrind (1968, 1972) and was found by Guidubaldi et al. (1987) to be relatively facilitative of child adjustment. What this author considers unexpected is the fact that the effect was found consistently for children from intact families, but not for children of divorce, particularly males. Biller and Bahm's (1971) assertion that divorced mothers encourage stereotyped male behaviour in their sons would suggest that these mothers held traditional sex role attitudes, and would lead to the further hypothesis that parental pressure towards traditional attitudes and behaviours is associated with high levels of aggressiveness and acting out in male children of divorce. Consequently, it was expected that the inverse relationship between AWS score and CBCL score would be observed in the present sample of boys from broken homes. The inconsistency between Biller and Bahm's findings and the present result may be accounted for by critical examination of the nature of the construct of "traditionality" examined by each study. Recall that Biller and Bahm observed maternal behaviour (ie. encouragement of aggressiveness, etc.), while the present study evaluated attitudes. The inconsistency between the findings of the

two studies suggests that the assumption that the maternal behaviour of encouraging traditional behaviour in their sons is not necessarily correlated with traditional sex role attitudes on the part of the mother. This conclusion is unlikely, however, in light of the massive amount of social psychology literature which indicates a highly interdependent relationship between attitudes and behaviours. Perhaps the AWS is too narrowly focused on specific sex role attitudes relating to women to assess or reflect the full continuum of traditional/liberal attitudes. The use of a more broad based instrument evaluating traditionality/liberalism in more detail might have produced the expected result. In any case, within the present context, a question remains as to why a systematic difference exists between children of divorced and intact families in the manner in which they respond to maternal sex role attitudes, as measured by the AWS. It might be speculated that traditional sex role attitudes reflect a certain degree of conformity which, in turn, is a component of Baumrind's authoritarian parenting style. Recall that the authoritarian parenting style was found by Guidubaldi et al. (1987) to be detrimental to childrens' behaviour regardless of child gender of parental marital status. Since the social psychology literature asserts that people marry people with attitudes similar to their own, it is reasonable to conclude that a woman with traditional sex role attitudes will marry a man with a similar viewpoint and that a woman with a more feminist or liberal perspective will marry a more liberally biased man. It might further be speculated that, in intact families, the sex role attitudes and associated conforming or non-conforming parenting styles of one parent are reinforced by the other parent, so the child receives a consistent message about traditional/liberal attitudes and behaviours from both of his major adult

authority figures and role models. Intuitively, then, it would make sense that parental sex role attitudes would have greater impact on the child from an intact home than on the child from a divorced home who experiences the sex role attitudes and behaviours of primarily one parent. It follows that sex role attitudes would be more likely to be predictive of child behaviour for children from intact homes than for children from broken families. It must be reiterated that the foregoing argument is speculative and, as such, has no empirical basis at present. However, this line of reasoning does integrate existing findings in such a way as to account for the somewhat unexpected relationship between AWS score and CBCL score for children of intact families in the present study. The cornerstone assumption which needs to be empirically tested is the notion that traditional sex role attitudes are associated, uniformly across sexes, with conformity and authoritarian parenting styles, while more liberal attitudes are related to non-conformity and either the authoritative or permissive style of child rearing.

The absence of the expected inverse relationship between liberal maternal attitudes and behaviour problems in male children of divorce may also be explained in terms of the child's need for structure. Recall that Plunkett and Kalter (1984) and Wallerstein and Kelly (1980) found that male children of divorce tended to use disorganized or ineffective strategies for coping with stress. It follows that these children might cope better if they were assisted by some externally imposed structure. Assuming that more traditional attitudes are associated with authoritarian parenting styles which, in turn, involve high degrees of family structure, it may be argued that the male child of divorce could benefit from the increased

structure. However, as Guidubaldi and associates (1987) and the present study have demonstrated, excessive levels of structure and control are associated with higher numbers of behaviour problems in male children. A moderate level of parentally imposed structure without an element of over-control may be beneficial in helping male children to cope with parental divorce. Indeed, this hypothesis is corroborated by the present finding which indicated that degree of family organization was inversely predictive of behaviour problems for male children of divorce.

Uniqueness of Predictors. As may be inferred from the foregoing discussion, behaviour of each of the four groups of children was found to be associated with a unique constellation of environmental predictor variables. Recall that predictors of behaviour for each group were as follows: male children of divorce - Cohesion, Control, Organization, Religious, and Custody Type; female children of divorce - Expressiveness, Control, Achievement, and SES; male children of intact families - Cohesion, Control, and Attitude Towards Women; female children of intact families - Intellectual, Conflict, and Attitudes Towards Women. Little commonality appeared to exist between the groups' predictors except on the factor of control which was inversely related to behaviour problems and thought to have an overall detrimental influence on child behaviour.

Interestingly, there did not appear to be any consistent exclusive pattern across sets of predictors as associated with either gender of child or marital status of parents. As has been discussed, Cohesiveness stood out as a predictor of the behaviour of males versus females, while AWS appeared to be relevant for children of intact homes as opposed to children of divorce. Otherwise, neither the male/female nor the intact/divorced

dichotomy was entirely reflected by a specific defining set of predictors. Wallerstein and Kelly's developmental vulnerability hypotheses cannot adequately account for this finding. Since Wallerstein and Kelly postulated that behaviour is entirely a function of gender mediated inherent developmental strengths and weaknesses, their hypothesis would predict that environmental factors should be unrelated to behaviour. The findings that environmental influences were indeed predictive of behaviour problems, and that there existed differences between sexes and between family structures in environmental predictors are clearly inconsistent with the Wallerstein and Kelly model. Hetherington's environmental stress model appears to provide a "better fit" inasmuch as it predicts both commonalities and differences in the sets of environmental predictors for the four groups of children. Hetherington's model suggests that as a group, children of divorce experience different environmental influences from children of intact families, and that males experience different stressors than do females. Consequently, it would be expected that there would exist similarities in the sets of environmental predictors of behaviour for children of divorce versus children of intact families (collapsed across gender) and for male versus female children (collapsed across parental marital status). Within the present context, where design completely crossed sex of child with parental marital status, each of the four groups of children would be expected to have a unique set of predictors with some commonality across groups based on child gender and family structure. Indeed, this result was observed in the present study; each group of children was found to have predictors unique to that group, but Control was common across all children of divorce, AWS score was a common predictor across all children from intact homes, and Cohesion was

predictor for male children regardless of parental marital status. It may be concluded that the behaviour of children of different sexes and from different family structures is associated with different environmental influences. This finding is strongly supportive of Hetherington's hypothesis but does not entirely rule out the Wallerstein and Kelly model inasmuch as differences in predictors between sex groups could be functionally related to inherent differences in developmental vulnerabilities to environmental stress. A model predicated on an interaction of environmental influences and individual vulnerabilities may be more appropriate.

Environmental Factors Differentiating Groups

Discrimination among all groups. Results of the discriminant analysis of environmental factors data, for all four groups of children, supports the hypothesis that children of divorce differ from children from intact families with regards to interpersonal factors existing in the home environment. The discriminant functions generated tended to differentiate the groups in such a manner that children of divorce and children of intact families were clustered into two distinct groups regardless of gender of child; minimal discrimination was observed between sexes in each of these groups. This finding suggests the existence of systematic differences between children from divorced versus intact homes with respect to the factors comprising the discriminant function. Recall that Cohesion and Expressiveness tap into the FES Relationship dimension, and Independence, Moral-Religious Emphasis, and Recreation represent the FES Personal Growth dimension. The FES System Maintenance dimension and demographic

characteristics of the family did not discriminate between groups, while the remaining discriminant factors seemingly reflected maternal attitudes towards self or women in general. Interestingly, with respect to weightings of discriminant coefficients, the Relationship factors took precedence over the Personal Growth factors which, in turn, took precedence over maternal attitude factors. Collectively, these results suggest that the major differences between the environments of children of divorce and children of intact families are reflected primarily by variations in the quality of interpersonal relationships existing within the nuclear household and secondarily by the attitudes of the caretaking parents. Furthermore, recall that reported scores on the FES factors comprising the Relationship and Personal Growth dimensions tended to be higher for intact families, thereby suggesting that interpersonal relationships are qualitatively better in two-parent homes. The children of divorced homes appeared to be at a disadvantage with respect to Relationship and Personal Growth dimensions inasmuch as their mothers reported generally lower levels of family cohesiveness, etc. This finding suggests a deterioration in the quality and quantity of interpersonal interactions between parents and children and between siblings in divorced families. Longitudinal studies like those of Block et al. (1986, 1988) are necessary in attempting to trace the development of apparent deficits in the quality of relationships existing in families which eventually undergo divorce. It is possible that high levels of Cohesion, Expressiveness, etc. were never present in families which divorce and that the post-divorce deficits found in the present investigation reflect ongoing, long term dysfunctional interactional patterns. Indeed, such ingrained deficits might even predispose a family to divorce. Alternatively, interactional deficits may

be phenomena occurring relatively recently in the family history and to which the divorce may have been a contributing or causal factor. Because the present study evaluated families only during the post-divorce time period, it cannot make predictions as to which if either, of these hypotheses is correct. However, on the basis of the present results, a relationship between interpersonal relationship deficits in divorced families and the tendency for children from divorced home to show more behaviour problems than children from intact families may be postulated. Since both appear to be differentiating factors between children from different home structures, it would be a mistake to disregard the possibility that they might be functionally related in some way. Indeed, they may exist independently as the outcomes of some third factor such as divorce or pre-existing family pathology, but it is reasonable to speculate upon the existence of an interactive relationship. Most clinicians who have worked with families and children have seen that children 'act out' in order to obtain attention from parents or other family members. Furthermore, the quality of parent/child and sibling to sibling relationships is often seen to deteriorate when one or more children consistently misbehave. Anecdotal observations of this sort clearly reflect the existence of an interactive relationship between interpersonal family interactions and child behaviour. The existence of such a reciprocal relationship would predict that, in the absence of intervention, dysfunctional family interactions and child misbehaviour would each likely exacerbate the other in an ever increasing spiral of conflict, interpersonal withdrawal, and misbehaviour. Interestingly, the System Maintenance dimension factors such as Control and Organization were not implicated as differentiating factors between intact and divorced families.

One might wonder, if the scenario just described is correct, whether dysfunctional families sacrifice system maintenance to the recurrent cycle of maladaptive interactions and misbehaviour; the postulated cycle of interpersonal dysfunction suggests that the 'normal' amount of system maintenance present in the divorced families may be inadequate to maintain a stable style and quality of life. Alternatively, an inability to get organized might contribute to the inability to break the cycle without external intervention.

Discrimination between male and female children of divorce. With respect to Hetherington's hypothesis that male children in divorced families experience more environmental stress than do their female counterparts, the findings generated by discriminant analysis yielded somewhat disconcerting results. Given the findings of Emery (1982), Hetherington et al. (1978, 1979, 1982, 1985), Hess and Camara (1978) and Guidubaldi et al. (1987), it was expected that male children would be differentiated from females on the basis of higher scores on scales reflecting negative environmental stress. In other words, it was thought that discriminant analysis would yield a function wherein the male/female differentiation was made on the basis of between groups differences in levels of Conflict, Control, and traditionality. On the contrary, results paralleled the children of divorce versus children of intact families dichotomy just discussed; the majority of the salient differentiating factors appeared to be those relating to positive environmental influences reflecting quality of interpersonal relationships within the nuclear home. It seems that male children of divorce do not experience more directly negatively stressful environmental influences than do girls, but rather

that they experience less positive, supportive influences. This conclusion is supported by an interesting pattern in the results which becomes apparent upon examination of the relationship between gender of child, discriminant factor coefficient weights, and group mean scores on the discriminant factors. Girls scored higher on FES dimensions of Cohesiveness, Expressiveness, Independence, and Organization, all of which reflect supportively structured interpersonal and familial dynamics involving the child. Boys, on the other hand, had higher scores on the maternal self esteem scale which represents a more intrapersonal dimension specific to mothers, rather than to the child or family. Furthermore, examination of the discriminant coefficient weightings indicates that the primary differentiating factors between the two groups are those which reflect quality of interpersonal relationships. The girls, therefore, can be said to be at a significant advantage over boys with respect to the experience of supportive familial interpersonal dynamics.

Clearly, the present finding necessitates a reconceptualization of Hetherington's environmental stress hypothesis in terms of a deficit model. Hetherington postulated that male children of divorce experience more direct environmental stress than do females, and she implied that the nature of this stress involved an excess of aversive environmental influences. Indeed, Santrock and Tracy's (1978) findings that male children of divorce experience higher levels of criticism from parents and teachers, and Guidubaldi et al.'s (1987) finding that males are subject to the potentially aversive authoritarian parenting style would tend to support Hetherington's position. The present findings do not implicate levels of Control or familial Conflict as differentiating between male and

female children of divorce, although the regression analysis discussed earlier does suggest that the nature of behavioural response to these factors is mediated by child gender. However, the lack of support for one specific facet of Hetherington's hypothesis does not justify 'throwing the baby out with the bath water'. The argument can be made that a general deficit in supportive family relationships constitutes environmental stress, albeit a stress of omission rather than commission, for male children of divorce. Accordingly, Hetherington's hypothesis is supported with respect to the issue of differential levels of environmental stress between boys and girls from divorced homes, but the conceptualization of the nature of the stressor may need to be altered to reflect a deficit in support rather than an excess of turmoil.

Theoretical Implications

The foregoing discussion has alluded to the impact of the current findings in Wallerstein and Kelly's and Hetherington's existing theoretical models of childrens' reactions to parental divorce. At this point, it seems appropriate to reiterate that causal modeling containing specific predictions about the nature and direction of causality between two or more variables is impossible within the present context. The quasi-experimental nature of the research area makes it logistically and ethically impossible to manipulate relevant variables in such a manner as to permit causal inference. Families cannot be made to divorce and existing environmental and/or developmental factors cannot be varied in the traditional sense of empirical hypothesis testing. Such lack of control over the variables under investigation necessitates that any conclusions or hypotheses arising

from the data be functionally based on observed patterns of interrelationships or associations between those variables. Much of the previous research has been criticized for drawing causal inferences on the basis of such correlational data. It is imperative that the following discussion be considered in light of the fact that the data upon which the models are based is correlational in nature. Relational inference is possible; causal modeling is not.

Perhaps the issue most basic to a discussion of theoretical models pertains to conceptualization of the divorce event. Kurdek (1985) has argued that the existing research lacks controlled and empirically validated theoretical models; the earlier discussion of the strengths and weaknesses of the Wallerstein and Kelly and Hetherington models of observed sex differences in the behaviour of children of divorce seems to support this contention. Kurdek has also stated that the research needs to relate to some empirically valid existing theory about behaviour, and that parental divorce needs to be viewed as a long term, multi-level process which may have differential impact depending on the stage of the family life cycle extant when divorce occurs and which had reciprocal effects on parents and children. To this time, however, parental divorce has generally been regarded from a crisis perspective wherein the divorce was assumed to have discrete and clearly defined temporal and situational parameters and ramifications. The assumption that the child experiences parental divorce as a discrete crisis is intuitively untenable. It may be inferred from crisis theory that the stressful event (divorce) is time delimited with some readily identifiable beginning and end; the implication is that stress must be coped with and then things return to some semblance

of their previous normality. However, divorce cannot be equated with other catastrophic stressors such as sudden death of a family member or severe illness because, unlike these stressors, divorce is a process which has no clearly identifiable beginning and end. As Kurdek and others have argued, the beginning of the divorce process cannot be identified at a specific point in time. One of the major reasons for divorce and one of the major predictors of poor post-divorce adjustment is inter-parental conflict. In most cases, such conflict exists for months or even years prior to the decision to divorce. During that time, although the divorce per se has not yet occurred, the conflict which will ultimately be considered part of the divorce has the opportunity to begin disrupting child behaviour. In this way, the effects of divorce begin before divorce actually happens. The process continues during the actual divorce crisis and after the split takes place. When parents actually separate or divorce, the child's life may never truly return to or even approximate the way it was before parental split. Even in the unlikely event that the child's home, school, socioeconomic status, and general quality of life remain unchanged subsequent to the divorce, the formal signing of a divorce decree does not by any means denote the end of the crisis. One parent has been functionally removed from the child's daily life and, unless custody/visitation issues are very clearly and equitably specified, that parent may remain in some form of limbo where he or she is neither in nor out of the child's life. Ambiguity in the status of the non-custodial parent leaves the child with a relatively unpredictable relationship with that parent; the stress or anxiety potentially engendered by such uncertainty may continue indefinitely if the ambiguity is not resolved. Furthermore, the grim reality of the situation is that many aspects of the

child's social support systems and physical environment may change, often for the worse, after divorce. The child may be forced to change schools, give up contact with valued family members on the side of the non-custodial parent, change homes and friends, and adapt to a decreased family income as the result of divorce. These changes do not begin with the legal filing for divorce and end with the granting of the decree. On the contrary, they may start even before the parental split and continue for an unknown period of time after the divorce is final. Again, divorce must be seen as a process. By adhering to the notions that divorce has a ongoing impact both before and after the actual legalities are completed and that divorce results in widespread environmental changes in the child's life, the present study, like those of Block et al. and Guidubaldi et al. is unique in its ecological perspective. Hence, Kurdek's requirement that an ecological perspective be used is satisfied.

It is difficult to attempt to integrate current findings into existing theoretical models. Wallerstein and Kelly and Hetherington have been roundly criticized for attempting to do so without benefit of empirical support. The present study was originally conceived as an empirical test of Hetherington's environmental stress hypothesis; quite simply stated, the present findings are not unequivocally supportive of either Wallerstein and Kelly's or Hetherington's model, particularly as those models relate to the issue of gender differences in observed behaviour problems.

A model analogous to Hetherington's can be used to account for the finding that children of divorce showed higher levels of behaviour problems than children of intact families. Presumably, children of divorce should be no more developmentally vulnerable than children of intact families, at

least in a physiological sense, and it can, therefore, be concluded that the observed differences in behaviour problems are functionally related to environmental factors associated with divorce. This hypothesis was clearly supported by the discriminant analyses which showed divorced families to be deficient in supportive relationship and personal growth factors.

With regard to the issue of sex differences in levels of observed behaviour problems, the conflict between Wallerstein and Kelly's and Hetherington's models has focused primarily in the population of children of divorce. First of all, the present investigation revealed that main effects for sex only approached but did not achieve statistical significance, thereby dealing a serious blow to the idea that boys are more disturbed because they are more vulnerable; boys did not show that many more behaviour problems than girls. Secondly, the observed tendency for boys to show slightly more behaviour problems than girls was not found to be unique to the population of children of divorce. Indeed boys tended to show slightly higher CBCL scores than did girls regardless of parental marital status. While the effect was not statistically significant, the expectation that males would exhibit higher CBCL scores than females within each family structure group was met; this finding appears tentatively supportive of Wallerstein and Kelly's developmental vulnerability hypothesis. However, such a conclusion is logically flawed inasmuch as it fails to recognize, as Hetherington argues, that different environmental factors may impinge on children of different gender. Hence, nature remains confounded with nurture, and the regression analyses and discriminant analyses of the present data unfortunately do little to resolve the conflict. The factor of FES Control was found to be equally detrimental to

three of the four groups of children, thereby suggesting no gender mediated difference in developmental vulnerability to this type of stress. However, Control was not found to be present for one sex more than the other, thereby suggesting that there was no environmental difference between sexes on this factor. Single parent custody appeared to be associated with higher levels of behaviour problems for male children of divorce and, on the basis of the argument that single parent custody reflects greater interparental conflict, this finding supports the hypothesis that higher levels of environmental stress are related to behaviour problems. However, since this effect was apparent only for male children of divorce who still showed overall higher levels of behaviour problems than their female counterparts, the implication is that joint custody ameliorates only part of whatever is responsible for the apparent sex difference. It can be argued that the 'leftover' is a function of either other environmental factors differentiating boys from girls or of a generalized predisposition for males to be more vulnerable to stress. Similarly, the finding that male children from both parental marital status groups were impacted by family cohesiveness while girls weren't affected argues for the notion that boys are inherently more reactive than girls on this dimension. Still, discriminant analysis showed greater levels of cohesion in the families of female children of divorce, thus indicating that the males are at a disadvantage with respect to one of the factors which is apparently critical to their emotional adjustment. The very fact that discriminant analyses revealed specific environmental differences between male and female children of divorce was supportive of the hypothesis that the children of different genders operate under different environmental conditions. However, the fact that regression analyses showed few of these

factors to be predictive of behaviour problems suggests that sex differences in behaviour are not directly due to gender associated variations in those differential factors.

The lack of unequivocal support for either the environmental stress or the developmental vulnerability models of sex differences in childrens' behaviour implies that neither hypothesis is fully correct in its conceptualization of the issue. This is not to say, however, that these models are definitively incorrect; current and previous research provide partial support for each viewpoint. In keeping with Kurdek's assertion that an ecological perspective is the most appropriate vantage point for examination of the behaviour of children of divorce, the present author proposes that the variations in the emotional adjustment of children of divorce may be accounted for by an individual differences model which incorporates concepts of both developmental vulnerability and environmental stress. The present study strongly demonstrates that environmental differences exist between children of intact families and children of divorce and, within the group of children of divorce, between male and female children. It has also indicated a tendency for males to exhibit higher levels of behaviour problems than females. The former finding is supportive of the hypothesis that differences in environmental stress exist between different family structures and different genders, while the latter supports the conclusion that boys are more developmentally vulnerable than girls. The two models need not be considered mutually exclusive; an ecological perspective would suggest that, for any individual child, level of behaviour problems is a function of both that child's inherent physiological and psychological strengths and weaknesses, and the

environmental influences impacting on the child. Behaviour in general may be construed as the result of an interaction of developmental vulnerability and environmental factors. This hypothesis is supported not only by the results of the statistical analyses previously discussed, but also by basic characteristics of the raw data itself. Behaviour problems scores for all groups of children were normally distributed with approximately the same range, but some differences in means as reflected by the ANOVA discussed earlier. It follows that, despite the differences in measures of central tendency, there were individual cases in which a child of divorce showed less behaviour problems than a child from an intact family, and where male children showed less behaviour problems than did female children. If it were the case that either the developmental vulnerability model or the environmental stress hypothesis was entirely correct and that the two models were mutually exclusive, then it would be expected that there would be no overlap whatsoever between the male versus female distributions of CBCL scores or between the intact family versus divorced family distributions. Since all distributions showed a significant degree of overlap, it follows that that overlap must be accounted for by individual differences in characterological, physiological, or environmental factors idiosyncratic to each child. Additionally, examination of the childrens' CBCL subscale profiles revealed no consistent pattern of specific problem areas across child gender or parental marital status; each child had a unique subscale profile. Hence, an ecological model wherein environmental stress interacts with unique characteristics to the child to produce behaviour is supported.

Clinical Implications

A number of implications for clinical practice arise from examinations of the present results; they range from general considerations for child therapy to specific issues relating to dealing with children of divorce. At the most basic level, the issue of conceptualization of the etiology and treatment of child behaviour problems is at issue. The present study clearly contraindicates an 'individual psychopathology' model in evaluation and intervention. To the contrary, the fact that specific environmental factors were predictive of behaviour problems in all groups of children studied suggests the use of a systemic perspective, thereby indicating the necessity for formalized evaluation of family environment including family dynamics and demographic characteristics whenever a child presents for psychotherapy. While many clinicians routinely include family assessment/intervention as part of initial evaluation and treatment planning or as a component of ongoing therapy, the present results suggest that particular attention be paid to assessing quality of interpersonal relationships and levels of supportive structure versus authoritarian control in the home. Use of standardized assessment instruments such as the FES would be ideally suited for this purpose. Furthermore, evaluations should be made on the basis of independent reports by nuclear household members and by significant others such as teachers in order that a complete and minimally biased picture of family and child functioning can be constructed.

Several broad based axioms for child psychotherapy may be derived from the present results:

1. Authoritarian parenting styles may be associated with child behaviour problems; encouragement of autonomy within limits of parental rules and development of parental rules based on organization rather than control may be a more effective parenting style.
2. Level of child behaviour problems examined in the present study appears, at least in part, functionally related to the quantity and quality of interpersonal relationships in the nuclear household, thus suggesting improvement in related factors as a focus for psychotherapy.
3. Since familial dynamics appear critical to child behaviour, family therapy is indicated as an alternative or adjunctive to individual therapy with the identified child patient.
4. An ecological context for problem conceptualization, assessment, and treatment is preferable to a crisis or individual pathology model.

The use of a process oriented ecological model, as opposed to a crisis model, is of particular importance in treating children of divorce. As the studies of Guidubaldi and associates have demonstrated, the effects of divorce appear to persist for prolonged periods of time, and the present study has clearly demonstrated the salience of environmental factors in mediating those effects. Since the present study has identified levels of familial supportiveness and closeness, assertive expression of feelings, encouragement of autonomy, non-traditional values, and participation in group family activities as being important predictors of behaviour in children of divorce, it is suggested that these factors be considered as primary goals for assessment and treatment. Furthermore, since all of

these constructs reflect some form of family dynamic, family therapy is recommended.

Similarly, within the group of children of divorce, families of boys appear to be deficient in family cohesiveness, expressiveness, independence and organization without authoritarian control. Family therapy aimed at increasing these factors is indicated. Furthermore, it is appropriate to reiterate at this point that a heavily controlling, authoritarian parenting style is contraindicated with male children of divorce, so parent training may be indicated if an identified patient child is subject to an authoritarian caretaker. Joint custody should also be considered for such children, providing that it does not involve high levels of interparental conflict. Finally, for boys in single parent custody, increasing the frequency and quality of contacts with the non-custodial parent is likely to be associated with an improvement in behaviour.

Future Directions

The aim of the present study was to systematically examine behavioural and environmental differences between children of divorce and children of intact families, and between male and female children from divorced homes. In achieving its goal, the investigation appears to have raised considerably more questions than it answered. The need for future research to address these issues is critical to the understanding and treatment of child behavioural disturbance, particularly for children of divorced parents. Longitudinal research appears to be the key to understanding the development and long term consequences of divorce related child behavior problems and family dysfunction; sampling child and family behaviour at a

specific moment in time is useful for describing behaviour and environmental conditions at that time, but has little functional utility in extending understanding of how those behaviours and conditions came into being. The landmark studies of Block and associates in evaluating families over time and of the Guidubaldi research group's long term studies of the impact of divorce on children must be replicated and extended in order to answer theoretical and clinical questions posed throughout the course of this discussion. At a theoretical level, the ecological perspective espoused by Kurdek, Guidubaldi et al., and the present author may provide an appropriate theoretical/causal model for understanding not only the impact of divorce on children, but also the behaviour of children in general. Finally, treatment outcome studies are necessary to the development of effective intervention strategies aimed at improving the quality of life for children and families of divorce.

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Appendix A
QUESTIONNAIRE PACKAGE

July, 1987

Dear Parent:

I am a graduate student in Psychology at the University of Manitoba and, in cooperation with your pediatrician at Manitoba Clinic, I am completing the final research project for my degree. I've always enjoyed working with children and I spent last year working as a psychological consultant to the doctors at the Manitoba Clinic. During that time, I became interested in the effects of different home environments on children's behaviour, and I have decided to follow up on this interest with this research project.

All parents with children between the ages of 6 and 12 are being given this package of questionnaires which ask for information about that child's behaviour and the environmental conditions existing in the home. The information which you provide will not only help me to obtain my degree, but may also prove valuable in helping us to understand the ways in which children and parents may obtain a better quality of life. I would greatly appreciate your completing these questionnaires and returning them to me in the stamped addressed envelope as soon as possible. Please note that you are under no obligation to complete these questionnaires; if you agree to participate in the study by filling in the enclosed forms, please do not put any personal identifying information (eg. name, return address, etc.) on either the forms or the envelope. This procedure is a safeguard designed to protect your privacy. If you have any questions about the study, please don't hesitate to write to me at the following address, and I will get back to you by letter or by phone:

Joan Lawrence
Department of Psychology
University of Manitoba
Winnipeg, Manitoba
R3T 1N2

If you are interested in knowing the outcome of the study, summaries of my research results and conclusions will be distributed at Manitoba Clinic starting in fall of 1988. If you are unable to pick up a copy at that time, please write to me and I will be happy to send one to you.

Thanking you in advance for your help and cooperation.

Yours sincerely,

Joan Lawrence

INSTRUCTIONS

The following questionnaires are to be filled out by the mother of the child brought into Manitoba Clinic on this visit. Several of the questionnaires ask for general information about your home environment, while another asks for information about your own thoughts and feelings about yourself. Finally, the Child Behaviour Checklist (CBC), looks at the behaviour of one specific target child. For the purpose of answering the CBC, think of the target child as the child whom you brought into Manitoba Clinic on the visit when you were given this survey. If you brought in two children on that visit, the target child is the one who is at least 6 years, but not yet 12 years old. If both children were in that age range, the target child is the younger of the two.

Each questionnaire has its own instructions. Please read them carefully and answer the questions as best you can. Finally, although it is important that you answer as many of the items as possible, please do not feel obligated to complete those which you are not comfortable answering.

Child Demographic Sheet

This questionnaire asks for specific information about your child. Sex of child you brought into Manitoba Clinic on this occasion. If you brought in 2 children, answer for the child between the ages of 6 and 12, or, if both are in that age range, for the younger of the two.

_____ Male _____ Female

Your relationship to this child (please specify) _____

This child's birthdate. day_____/month_____/year_____

Today's date. day_____/month_____/year_____

Is this child learning disabled, or mentally or physically handicapped, or adopted?

_____ YES _____ NO

How many children permanently live in your household (including the child that you brought in today)? Please fill in a number for both boys and girls.

_____ boys _____ girls

Is any child in your family learning disabled, mentally or physically handicapped, or adopted?

_____ YES _____ NO

Family Environment Scale

The statements listed below describe situations which could happen in a family. For each statement below, please circle T if the statement describes your family most of the time, or F if the statement does not describe your family most of the time.

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| 1. Family members really help and support one another. | T | F |
| 2. Family members often keep their feelings to themselves. | T | F |
| 3. We fight a lot in our family. | T | F |
| 4. We don't do things on our own very often in our family. | T | F |
| 5. We feel it is important to be the best at whatever you do. | T | F |
| 6. We often talk about political and social problems. | T | F |
| 7. We spend most weekends and evenings at home. | T | F |
| 8. Family members attend church, synagogue, or Sunday school fairly often. | T | F |
| 9. Activities in our family are pretty carefully planned. | T | F |
| 10. Family members are rarely ordered around. | T | F |
| 11. We often seem to be killing time at home. | T | F |
| 12. We say anything we want to around home. | T | F |
| 13. Family members rarely become openly angry. | T | F |
| 14. In our family, we are strongly encouraged to be independent. | T | F |
| 15. Getting ahead in life is very important in our family. | T | F |
| 16. We rarely go to lectures, plays, or concerts. | T | F |
| 17. Friends often come over for dinner or to visit. | T | F |
| 18. We don't say prayers in our family. | T | F |
| 19. We are generally very neat and orderly. | T | F |
| 20. There are very few rules to follow in our family. | T | F |

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| 21. We put a lot of energy into what we do at home. | T | F |
| 22. It's hard to "blow off steam" at home without upsetting somebody. | T | F |
| 23. Family members sometimes get so angry they throw things. | T | F |
| 24. We think things out for ourselves in our family. | T | F |
| 25. How much money a person makes is not very important to us. | T | F |
| 26. Learning about new and different things is very important in our family. | T | F |
| 27. Nobody in our family is active in sports, Little League, bowling, etc. | T | F |
| 28. We often talk about the religious meanings of Christmas, Passover, or other holidays. | T | F |
| 29. It's often hard to find things when you need them in our household. | T | F |
| 30. There is one family member who makes most of the decisions. | T | F |
| 31. There is a feeling of togetherness in our family. | T | F |
| 32. We tell each other about our personal problems. | T | F |
| 33. Family members hardly ever lose their tempers. | T | F |
| 34. We come and go as we want to in our family. | T | F |
| 35. We believe in competition and "may the best man win". | T | F |
| 36. We are not that interested in cultural activities. | T | F |
| 37. We often go to movies, sports events, camping, etc. | T | F |
| 38. We don't believe in heaven or hell. | T | F |
| 39. Being on time is very important in our family. | T | F |
| 40. There are set ways of doing things at home. | T | F |
| 41. We rarely volunteer when something has to be done at home. | T | F |
| 42. If we feel like doing something on the spur of the moment we often just pick up and go. | T | F |
| 43. Family members often criticize each other. | T | F |
| 44. There is very little privacy in our family. | T | F |

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| 45. We always strive to do things just a little better the next time. | T | F |
| 46. We rarely have intellectual discussions. | T | F |
| 47. Everyone in our family has a hobby or two. | T | F |
| 48. Family members have strict ideas about what is right and wrong. | T | F |
| 49. People change their minds often in our family. | T | F |
| 50. There is a strong emphasis on following rules in our family. | T | F |
| 51. Family members really back each other up. | T | F |
| 52. Someone usually gets upset if you complain in our family. | T | F |
| 53. Family members sometimes hit each other. Family members almost always rely on themselves when a problem comes up. | T | F |
| 54. Family members rarely worry about job promotions, school grades, etc. | T | F |
| 55. Someone in our family plays a musical instrument. | T | F |
| 56. Family members are not very involved in recreational activities outside work or school. | T | F |
| 57. We believe there are some things you have to take on faith. | T | F |
| 58. Family members make sure their rooms are neat. | T | F |
| 59. Everyone has an equal say in family decisions. | T | F |
| 60. There is very little group spirit in our family. | T | F |
| 61. Money and paying bills is openly talked about in our family. | T | F |
| 62. If there's a disagreement in our family, we try hard to smooth things over and keep the peace. | T | F |
| 63. Family members strongly encourage each other to stand up for their rights. | T | F |
| 64. In our family, we don't try hard to succeed. | T | F |
| 65. Family members often go to the library. | T | F |
| 66. Family members sometimes attend courses or take lessons for some hobby or interest (outside of school). | T | F |
| 67. In our family, each person has different ideas about what is right and wrong. | T | F |

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| 68. Each person's duties are clearly defined in our family. | T | F |
| 69. We can do whatever we want to in our family. | T | F |
| 70. We really get along well with each other. | T | F |
| 71. We are usually careful about what we say to each other. | T | F |
| 72. Family members often try to one-up or outdo each other. | T | F |
| 73. It's hard to be by yourself without hurting someone's feelings in our household. | T | F |
| 74. "Work before play" is the rule in our family. | T | F |
| 75. Watching TV is more important than reading in our family. | T | F |
| 76. Family members go out a lot. | T | F |
| 77. The Bible is a very important book in our home. | T | F |
| 78. Money is not handled very carefully in our family. | T | F |
| 79. Rules are pretty inflexible in our household. | T | F |
| 80. There is plenty of time and attention for everyone in our family. | T | F |
| 81. There are a lot of spontaneous discussions in our family. | T | F |
| 82. In our family, we believe you don't ever get anywhere by raising your voice. | T | F |
| 83. We are not really encouraged to speak up for ourselves in our family. | T | F |
| 84. Family members are often compared with others as to how well they are doing at work or school. | T | F |
| 85. Family members really like music, art, and literature. | T | F |
| 86. Our main form of entertainment is watching TV or listening to the radio. | T | F |
| 87. Family members believe that if you sin you will be punished. | T | F |
| 88. Dishes are usually done immediately after eating. | T | F |
| 89. You can't get away with much in our family. | T | F |

Attitudes Toward Women Scale

The statements listed below describe attitudes toward the role of women in society that different people have. There are no right or wrong answers, only opinions. You are asked to express your feeling about each statement by indicating whether you (A) agree strongly, (B) agree mildly, (C) disagree mildly, or (D) disagree strongly. Please indicate your opinion by circling either A, B, C or D after each item.

A-agree strongly B-agree mildly
C-disagree mildly D-disagree strongly

1. Swearing and obscenity are more repulsive in the
speech of a woman than of a man. A B C D
2. Under modern economic conditions with
women being active outside the home, men
should share in household tasks such as
washing dishes and doing the laundry. A B C D
3. It is insulting to women to have the "obey"
clause remain in the marriage service. A B C D
4. A woman should be as free as a man to
propose marriage. A B C D
5. Women should worry less about their rights
and more about becoming good wives and mothers. A B C D

6. Women should assume their rightful place in
business and all the professions along with men. A B C D
7. A woman should not expect to go to exactly
the same places or to have quite the same
freedom of action as a man. A B C D
8. It is ridiculous for a woman to run a
locomotive and for a man to darn socks. A B C D
9. The intellectual leadership of a community
should be largely in the hands of men. A B C D
10. Women should be given equal opportunity with
men for apprenticeship in the various trades. A B C D
11. Women earning as much as their dates should
bear equally the expense when they go out
together. A B C D
12. Sons in a family should be given more
encouragement to go to college than daughters. A B C D
13. In general, the father should have greater
authority than the mother in the bringing up
of children. A B C D
14. Economic and social freedom is worth far more
to women than acceptance of the ideal of femininity
that has been set up by men. A B C D

15. There are many jobs in which men should be given
preference over women in being hired or promoted.

A B C D

Child Behaviour Checklist

Please answer this questionnaire on the basis of the behaviour of the child whom you brought into Manitoba Clinic on this occasion. If you brought in 2 children, please answer the questions only for the child in the 6 to 12 years age range. If both children were in that age range, focus your answers on the younger of the two children.

Below is a list of items that describe children. For each item that describes your child now or within the past 12 months, please circle 2 if the item is very true or often true of your child. Circle 1 if the item is somewhat or sometimes true of your child. If the item is not true of your child, circle the 0.

0 - not true

1 - somewhat or sometimes true

2 - very true or very often true

- | | | | |
|--|---|---|---|
| 1. Acts too young for his/her age | 0 | 1 | 2 |
| 2. Allergy (describe) _____ | 0 | 1 | 2 |
| 3. Argues a lot | 0 | 1 | 2 |
| 4. Asthma. | 0 | 1 | 2 |
| 5. Behaves like opposite sex | 0 | 1 | 2 |
| 6. Bowel movements outside toilet | 0 | 1 | 2 |
| 7. Bragging, boasting | 0 | 1 | 2 |
| 8. Can't concentrate, can't pay attention for long | 0 | 1 | 2 |

9. Can't get his/her mind off certain thoughts: obsessions (describe) _____	0	1	2

10. Can't sit still, restless or hyperactive	0	1	2
11. Clings to adults or too dependent	0	1	2
12. Complains of loneliness	0	1	2
13. Confused or seems to be in a fog	0	1	2
14. Cries a lot	0	1	2
15. Cruel to animals	0	1	2
16. Cruelty, bullying or meanness to others	0	1	2
17. Day-dreams or gets lost in his/her thoughts	0	1	2
18. Deliberately harms self or attempts suicide	0	1	2
19. Demands a lot of attention	0	1	2
20. Destroys his/her own things	0	1	2
21. Destroys things belonging to his/her family or other children	0	1	2
22. Disobedient at home	0	1	2
23. Disobedient at school	0	1	2
24. Doesn't eat well	0	1	2
25. Doesn't get along with other children	0	1	2
26. Doesn't seem to feel guilty after misbehaving	0	1	2
27. Easily jealous	0	1	2
28. Eats or drinks things that are not food (describe) _____	0	1	2
29. Fears certain animals, situations, or places	0	1	2
30. Fears going to school	0	1	2
31. Fears he/she might think or do something bad	0	1	2
32. Feels he/she has to be perfect	0	1	2

33. Feels or complains no one loves him/her	0	1	2
34. Feels others are out to get him/her	0	1	2
35. Feels worthless or inferior	0	1	2
36. Gets hurt a lot, accident prone	0	1	2
37. Gets in many fights	0	1	2
38. Gets teased a lot	0	1	2
39. Hangs around with children who get in trouble	0	1	2
40. Hears things that aren't there (describe) _____			
_____	0	1	2
41. Impulsive or acts without thinking	0	1	2
42. Likes to be alone	0	1	2
43. Lying or cheating	0	1	2
44. Bites fingernails	0	1	2
45. Nervous, highstrung, tense	0	1	2
46. Nervous movements or twitching (describe) _____			
_____	0	1	2
47. Nightmares	0	1	2
48. Not liked by other children	0	1	2
49. Constipated, does not move bowels	0	1	2
50. Too fearful or anxious	0	1	2
51. Feels dizzy	0	1	2
52. Feels too guilty	0	1	2
53. Overeating	0	1	2
54. Overtired	0	1	2
55. Overweight	0	1	2
56. Physical problems without known medical cause			
a. aches or pains	0	1	2
b. headaches	0	1	2

c. nausea, feels sick	0	1	2
d. problems with eyes (describe) _____			
_____	0	1	2
e. rashes or other skin problems	0	1	2
f. stomachaches or cramps	0	1	2
g. vomiting, throwing up	0	1	2
h. other (describe) _____			

57. Physically attacks people	0	1	2
58. Picks nose, skin or other parts of body (describe) _____	0	1	2
59. Plays with own sex parts in public	0	1	2
60. Plays with own sex parts too much	0	1	2
61. Poor school work	0	1	2
62. Poorly coordinated or clumsy	0	1	2
63. Prefers playing with older children	0	1	2
64. Prefers playing with younger children	0	1	2
65. Refuses to talk	0	1	2
66. Repeats certain acts over and over: compulsions (describe) _____			
_____	0	1	2
67. Runs away from home	0	1	2
68. Screams a lot	0	1	2
69. Secretive, keeps things to self	0	1	2
70. Sees things that aren't there (describe) _____			
_____	0	1	2
71. Self conscious or easily embarrassed	0	1	2
72. Sets fires	0	1	2

73. Sexual problems (describe) _____
 _____ 0 1 2
74. Showing off or clowning 0 1 2
75. Shy or timid 0 1 2
76. Sleeps less than most children 0 1 2
77. Sleeps more than most children during day
 and/or night (describe) _____
 _____ 0 1 2
78. Smears or plays with bowel movements 0 1 2
79. Speech problems (describe) _____
 _____ 0 1 2
80. Stares blankly 0 1 2
81. Steals at home 0 1 2
82. Steals outside the home 0 1 2
83. Stores up things he/she doesn't need
 (describe) _____ 0 1 2
84. Strange behaviour (describe) _____
 _____ 0 1 2
85. Strange ideas (describe) _____
 _____ 0 1 2
86. Stubborn, sullen, irritable 0 1 2
87. Sudden changes in mood or feeling 0 1 2
88. Sulks a lot 0 1 2
89. Suspicious 0 1 2
90. Swearing or obscene language 0 1 2
91. Talks about killing self 0 1 2
92. Talks or walks in sleep (describe) _____

<hr/>	0	1	2
93. Talks too much	0	1	2
94. Teases a lot	0	1	2
95. Temper tantrums or hot temper	0	1	2
96. Thinks about sex too much	0	1	2
97. Threatens people	0	1	2
98. Thumb sucking	0	1	2
99. Too concerned with neatness or cleanliness	0	1	2
100. Trouble sleeping (describe) <hr/>			
<hr/>	0	1	2
101. Truancy, skips school	0	1	2
102. Underactive, slow moving, or lacks energy	0	1	2
103. Unhappy, sad or depressed	0	1	2
104. Unusually loud	0	1	2
105. Uses alcohol or drugs (describe) <hr/>			
<hr/>	0	1	2
106. Vandalism	0	1	2
107. Wets self during day	0	1	2
108. Wets the bed	0	1	2
109. Whining	0	1	2
110. Wishes to be of the opposite sex	0	1	2
111. Withdrawn, doesn't get involved with others	0	1	2
112. Worrying	0	1	2

113. Please write in any problems your child has
that were not listed above

- | | | | | |
|----|-------|---|---|---|
| a. | _____ | 0 | 1 | 2 |
| b. | _____ | 0 | 1 | 2 |
| c. | _____ | 0 | 1 | 2 |

Family Demographic Sheet

This questionnaire asks for information about your child's home environment. Most items require a YES or NO, but some ask for an estimate of time. On the latter items, please be as specific as possible.

Your age. _____

Your marital status (check one).

_____ single, never married

_____ married

_____ living together

_____ separated or divorced

_____ remarried

If married, have you or your partner ever been legally or informally separated?

_____ Yes _____ No _____ Not applicable

Have you or your partner been married more than once?

_____ Yes _____ No _____ Not applicable

Did you speak and use English on a regular basis before you were 12 years old?

_____ Yes _____ No

Do you currently speak and use English in your household on a regular basis?

_____ Yes _____ No

What is your ethnic background (eg. Chinese, Ukrainian, etc.)?

What is the highest level of education obtained by the primary wage earner in your household? (Note: The primary wage earner is the person who brings the greatest amount of money into the home.)

- ☐ graduate degree
- ☐ bachelor's degree or technical diploma
- ☐ some university or technical college
- ☐ high school graduate
- ☐ some high school
- ☐ junior high school
- ☐ less than 7 years of formal schooling

What is the type of occupation currently held by the primary wage earner in your household?

- ☐ executive or professional
- ☐ upper level management
- ☐ middle or lower level management
- ☐ clerical, sales, or technical work
- ☐ skilled trade
- ☐ semi-skilled trade
- ☐ unskilled trade
- ☐ unemployed
- ☐ maintains a household

DIVORCED OR SEPARATED PARENTS ONLY FILL IN THE REMAINING ITEMS.

How many months has it been since your last separation with your ex-spouse?

Are you currently involved in a new relationship?

_____ Yes _____ No

If you are currently involved with someone, are you living together or separately?

_____ together _____ apart

Legally, do you have sole custody of the child(ren), or do you and the father share legal joint custody?

_____ sole custody _____ joint custody

Describe if you wish _____

Are important child raising decisions made by you alone, or by you and the child's father together?

_____ me alone _____ both parents

How many hours per week does the child whom you brought in today spend with his or her father? _____

Prior to your separation or divorce, was your relationship with the child's father openly difficult or disharmonious?

_____ YES _____ NO

If you answered YES to the question above, for how long was your relationship openly conflictual prior to the split?

_____ weeks _____ months _____ years

In what ways was it apparent to your child(ren) that you and your ex-spouse were having marital problems?

Comments:

Appendix B

INSTRUCTIONS TO RECEPTIONISTS

Please give the questionnaire package to each parent bringing in a child who is at least 6 years old, but not yet 12.

DO NOT give out the questionnaire package only if you KNOW FOR SURE that the child or parent meets ONE OR MORE of the following criteria:

- 1) child is learning disabled or referred for assessment of learning disability
- 2) any family member has a physical, mental, or neurological handicap
- 3) child is adopted
- 4) child is of single parent, never married
- 5) child is from a family where there has been a widowhood
- 6) either parent had been married more than once
- 7) in a divorced family, the custodial parent has a new live-in relationship
- 8) in a divorced family, custodial parent is male (father)
- 9) non-Caucasian ethnic background

If there is any doubt about whether one or more of the exclusion criteria described above are met, give out the questionnaire package anyway.

THANKS!