



National Library
of Canada

Bibliothèque nationale
du Canada

Canadian Theses Service

Services des thèses canadiennes

Ottawa, Canada
K1A 0N4

CANADIAN THESES

THÈSES CANADIENNES

NOTICE

The quality of this microfiche is heavily dependent upon the quality of the original thesis submitted for microfilming. Every effort has been made to ensure the highest quality of reproduction possible.

If pages are missing, contact the university which granted the degree.

Some pages may have indistinct print especially if the original pages were typed with a poor typewriter ribbon or if the university sent us an inferior photocopy.

Previously copyrighted materials (journal articles, published tests, etc.) are not filmed.

Reproduction in full or in part of this film is governed by the Canadian Copyright Act, R.S.C. 1970, c. C-30

**THIS DISSERTATION
HAS BEEN MICROFILMED
EXACTLY AS RECEIVED**

AVIS

La qualité de cette microfiche dépend grandement de la qualité de la thèse soumise au microfilmage. Nous avons tout fait pour assurer une qualité supérieure de reproduction.

S'il manque des pages, veuillez communiquer avec l'université qui a conféré le grade.

La qualité d'impression de certaines pages peut laisser à désirer, surtout si les pages originales ont été dactylographiées à l'aide d'un ruban usé ou si l'université nous a fait parvenir une photocopie de qualité inférieure.

Les documents qui font déjà l'objet d'un droit d'auteur (articles de revue, examens publiés, etc.) ne sont pas microfilmés.

La reproduction, même partielle, de ce microfilm est soumise à la Loi canadienne sur le droit d'auteur, SRC 1970, c. C-30.

**LA THÈSE A ÉTÉ
MICROFILMÉE TELLE QUE
NOUS L'AVONS REÇUE**

**Family Affect Related to
Children's Social Deviance and Competence**

Jocelyne Beaudet

**A Thesis
in
The Department
of
Psychology**

**Presented in Partial Fulfillment of the Requirements
for the Degree of Master of Arts
at Concordia University
Montréal, Québec, Canada**

September 1986

© Jocelyne Beaudet, 1986

Permission has been granted to the National Library of Canada to microfilm this thesis and to lend or sell copies of the film.

The author (copyright owner) has reserved other publication rights, and neither the thesis nor extensive extracts from it may be printed or otherwise reproduced without his/her written permission.

L'autorisation a été accordée à la Bibliothèque nationale du Canada de microfilmer cette thèse et de prêter ou de vendre des exemplaires du film.

L'auteur (titulaire du droit d'auteur) se réserve les autres droits de publication; ni la thèse ni de longs extraits de celle-ci ne doivent être imprimés ou autrement reproduits sans son autorisation écrite.

ISBN 0-315-35575-1

ABSTRACT

Family Affect Related to Children's Social Deviance and Competence

Jocelyne Beaudet

The relationship between parental attitudes, parental adjustment, child social deviance and competence was assessed. The subjects were 405 French speaking youngsters and their parents. The children were assigned to one of four groups on the basis of their score on a French translation of the Pupil Evaluation Inventory. The four groups were: aggressive, $n=51$; withdrawn, $n=56$; aggressive-withdrawn, $n=57$; and nondeviant control, $n=241$. Parental attitudes were measured with the Positive and Negative Expressed Emotion indices. As predicted both maternal negative attitude and paternal positive attitude were found to be significantly associated with the child's behavioral characteristics. The peer identified aggressive-withdrawn children, were postulated to be at greater risk for schizophrenia than other children, were more often criticized by their mother. Moreover, as expected, parental attitudes were significantly related to the parents' own maladjustment. Children of highly critical mothers were also found to be less socially competent. These findings underlined the value of independent ratings of child behavior from various sources. The potential usefulness and sensitivity of the Expressed Emotion Indices in assessing a non-clinical child population were also demonstrated. Clinical implications were discussed.

Acknowledgments

I express my gratitude to Dr. Alex Schwartzman, my thesis advisor, for his judicious support throughout the course of this project. His wisdom, perseverance and dedication to his work are inexhaustible sources of inspiration.

I sincerely wish to thank Dr. Anna-Beth Doyle and Dr. Lisa Serbin, members of my thesis committee, for their valuable suggestions in the planning of the project, and their discerning comments on my paper. I also acknowledge and thank Claude Senneville for his precious help, availability and friendship.

A special thanks to my friends and particularly to Gloria Smith, Helene Lamoureux, Pierre Duguay, Danielle Viens and Cecile Hebert for their warm presence.

Finally, my deepest gratitude to Benjamin, for his so valuable support and constant encouragement, and to Imisha, for the maturity he contributed to foster through his beautiful presence in my life. I am also grateful to my parents for their positive attitude toward me.

TABLE OF CONTENTS

	Page
INTRODUCTION	1
METHOD	24
Subjects	24
Parental measures	29
RESULTS	34
Parental attitude in groups of socially deviant and nondeviant children	34
Parental attitude in groups of socially deviant and nondeviant children and their siblings	37
Parental attitude and maladjustment among parents of deviant and nondeviant children	43
Parental attitude and children's social competence	49
DISCUSSION	56
REFERENCES	62
APPENDICES	78

LIST OF TABLES

	Page
Table 1. Sample frequencies by Pupil Evaluation Inventory (PEI) classification, sex and grade	27
Table 2. Speech sample frequencies for target children and siblings by Pupil Evaluation Inventory (PEI) classification, sex of the parents, and sex of the target children	31
Table 3. Observed frequencies of low and high Negative Expressed Emotion (NEE) and Positive Expressed Emotion (PEE) for mothers and fathers	36
Table 4. Observed frequencies of low and high Negative Expressed Emotion (NEE) and Positive Expressed Emotion (PEE) for mothers and fathers among deviant and nondeviant children	38
Table 5. Observed frequencies of low and high Negative Expressed Emotion (NEE) and Positive Expressed Emotion (PEE) for mothers and fathers by Pupil Evaluation Inventory (PEI) classification	39
Table 6. Observed frequencies of low and high Negative Expressed Emotion (NEE) and Positive Expressed Emotion (PEE) for mothers and fathers of target children and their siblings	41
Table 7. Observed frequencies of low and high Negative Expressed Emotion (NEE) and Positive Expressed Emotion (PEE) for mothers and fathers of siblings of target children classified as deviant or nondeviant	42
Table 8. Predictor variables' means and standard deviations for mothers' Negative Expressed Emotion (NEE) classification	44
Table 9. Predictor variables' means and standard deviations for mothers' Positive Expressed Emotion (PEE) classification	45

Table 10. Predictor variables' means and standard deviations for fathers' Negative Expressed Emotion (NEE) classification	46
Table 11. Predictor variables' means and standard deviations for fathers' Positive Expressed Emotion (PEE) classification	47
Table 12. Discriminant stepwise analyses for groups of Negative Expressed Emotion (NEE)	48
Table 13. Discriminant stepwise analyses for groups of Positive Expressed Emotion (PEE)	50
Table 14. Means and standard deviations for the Child Behavior Check List (CBCL) social competence	52
Table 15. Means and standard deviation for the Pupil Evaluation Inventory (PEI) likability	53
Table 16. Analysis of variance for the Child Behavior Check List (CBCL) social competence scores by Pupil Evaluation Inventory (PEI) classification and Negative Expressed Emotion (NEE) classification for mothers	54
Table 17. Analysis of variance for the Pupil Evaluation Inventory (PEI) likability Z scores by Pupil Evaluation Inventory (PEI) classification and Negative Expressed Emotion (NEE) classification for mothers	55

LIST OF APPENDICES

	Page
Appendix A. Pupil Evaluation Inventory	78
Appendix-B. Child Behavior Check List	82
Appendix C. Expressed Emotion scales	88
Appendix D. Provisions of Social Relations	95
Appendix E. Symptom Check List - 90	98
Appendix F. Short Marital Adjustment Test	104

Family Affect Related to Children's Social Deviance and Competence

During the past several decades many investigators have recognized the family's potential role in the development and course of schizophrenia. Family studies have explored the idea that definable features in the transactions of families of schizophrenics are crucial to understanding the development and maintenance of schizophrenia. Several theoretical and research perspectives within psychology, sociology, and psychiatry have influenced researchers in this field.

As early as 1927 Sullivan suggested that disturbed family relationships might be linked to a subsequent schizophrenic disorder. "The etiology of schizophrenia is to be sought in events that involve the individual. The significant events seem to lie wholly within one category, events relating the individual with other individuals more or less highly significant to him" (Sullivan, 1962, p.248). The inability of genetic researchers to explain the occurrence of schizophrenia as strictly a genetic outcome is also often considered as further support for the view that environmental factors such as family relationships play an important but as yet undetermined role in the development of schizophrenia (Liem, 1980).

The major impetus for family research in the area of schizophrenia was the work of Theodore Lidz at Yale University, Gregory Bateson of the Mental Research Institute of Palo Alto, and Lyman Wynne at the National Institute of Mental Health beginning some 25 years ago. Lidz's work stimulated interest in two aspects of the relationship between the parents of the schizophrenic, the quality of their emotional ties and

their relative power (Lidz, Cornelison, Fleck, & Terry, 1957). Bateson and Wynne, on the other hand, stimulated interest in the communication between parents and child. Bateson noted profound logical inconsistencies in the communications of parents of schizophrenics and proposed the double-bind hypothesis (Bateson, Jackson, Haley, & Weakland, 1956). In the theory of the Wynne group on the other hand, special attention is given to the impairment of ego functioning and its associated thought disorders in schizophrenia. There is a general guiding hypothesis that the thought disorder in schizophrenia derives from the disordered patterns of interaction in the family (Wynne, Ryckoff, Day, & Hirsh, 1958). These three propositions by Lidz, Bateson and Wynne have stimulated empirical studies of the link between family and schizophrenia for the past 25 years and have stimulated the development of increasingly more sophisticated research methodologies.

Studies before 1975 have been extensively reviewed by Jacob (1975) and also by Goldstein and Rodnick (1975). In both reviews the authors were forced to conclude that virtually no definitive statement could be made about the etiologic significance of family structure or family processes for schizophrenia. This conclusion was reached despite the fact that some aspects of family interaction, in particular disordered patterns of communication, were observed to be consistently and substantially correlated with the presence of schizophrenia in an offspring. The design limitations of most of these family studies, specifically, the exclusive use of cross-sectional designs examining family variables only after the occurrence of schizophrenia in an offspring, made it impossible to establish the impact of family variables before the onset of the disorder and ruled out potential

confounding by other variables.

Since 1975, some two dozen empirical studies have focused on the contribution of the family to the development of schizophrenia. Because of the methodological difficulties associated with studies of individuals already diagnosed as schizophrenic (Schwartzman, Ledingham & Serbin, 1985) more and more researchers concerned with familial factors have shifted their attention to populations with a higher than normal risk of developing schizophrenia, as a means by which to examine family variables prior to the onset of the disorder.

The literature related to the concept that disordered family relationships may be significant factors in the development and maintenance of schizophrenia, must be understood in the context of a "system" view of family relationships. The origins of the systems theory can be traced back to 19th century sociologists, psychologists, and biologists. Historically, the concept of systems grew out of the discipline of biology and was adapted to the social sciences by early social theorists. Bateson and other theoreticians in the family field have applied the basic principles to living systems (Bateson, 1972, 1979; Hoffman, 1981; Minuchin, 1974; Watzlawick, Jackson, & Beavin, 1967). Modern day systems' theory has changed somewhat from its original form; however, the unique aspects of the theory remain the same and are extremely useful for understanding how the family functions as a system. These basic aspects are: 1) it places great importance on interaction and interdependence of the parts - a change in one part of the system produces a change in another part; 2) the effects of the social environment on system members is heavily emphasized; 3) it redefines the focus of pathology from the individual level to the system level

(Minuchin, 1985).

A way of understanding the interactions and relationships of family members is to analyse how they communicate with each other. If it is accepted that all behaviors in an interactional situation have message value, are communications, it follows that no matter how one may try, one cannot not communicate. Activity or inactivity, words or silence, all have message value: they influence others and these others, in turn, cannot not respond to these communications and are thus themselves communicating (Watzlawick, et al. 1967). A distinction found frequently in sociological writings about communication in families and small groups, is between emotional and instrumental communication, that is, between communications focused on interpersonal feelings as compared to those directed to the solution of tasks or problems. Both dimensions of communication have been the focus of attention in discussions of family relationships and schizophrenia. Interest in emotional expression in schizophrenia is evident in some of the earliest attempts to define and formulate the properties of schizophrenia as a clinical entity. Special significance, for example, may be attached to the bluntness or flattening of affect characteristic of certain types of schizophrenia. There seems to be an implicit model in which nonexpressiveness is viewed as a mechanism of defense, a defense against real-but-denied feelings towards family members.

If one wants to measure feelings and attitudes the problem is to get the informant to express his attitudes and feelings in a way that does not distort his inner feelings and then to get investigators to agree on their ratings. Moreover, ambiguity and ambivalence often make it difficult to assess feelings; someone may feel both warmth and

resentment about another person. A further important distinction should be made between observed emotions, self-reported emotions and an informant's report of someone else's emotions. Becker (1960) showed that there was often serious disagreement between a mother's evaluation of the emotions of the father, and ratings based on interviews with the father, or the father's self-ratings. Moreover, the correlations between interview methods and self-rating methods were usually only fair, that is from .41 to .51 and were sometimes awkward. Interview measures of attitudes and emotions have also often had only a moderate level of reliability. For example, Peterson, Becker, Shoemaker, Luria, and Hellmer (1961) on measures of parental warmth, strictness etc.. obtained correlations of .45 to .81.

In the mid 60's, Brown and Rutter (1966) developed the Camberwell Family Interview Schedule from which two measures were derived. One is the objective measure of family activities; the other is the Expressed Emotion Index (EE). A principal aim of the Expressed Emotion index has been to move away from reliance on self-reports about feelings and to record instead positive and negative feelings expressed in the interview itself. Brown and Rutter's approach to the measurement of feelings has been dominated by one observation. In the course of an interview, respondents quite commonly spontaneously express negative feelings which they have denied in response to a direct question, or they fail to express positive feelings which one would have expected from their answers to direct questions. Whatever the reasons for the phenomenon these authors decided that the main source of data of the Expressed Emotion index should be the spontaneous expression of emotions while factual information is being sought.

Expressed emotion refers to emotional aspects of speech or emotional messages for which ratings have been derived (Kuipers, 1979). Emotional messages consist of behaviors which serve as cues for inferring something about the person's emotional state. The ratings are based on several factors. The content of what is said is taken into account, but more emphasis is laid on the way things are said. Interviewers are expected to recognize emotions by observing differences in the speed, pitch and intensity of speech (Rutter & Brown, 1966). Reviews of the literature on implicit affective communication indicate that raters can make reliable judgments of feelings or attitudes on the basis of vocal and nonverbal stimuli (Davitz, 1964; Marsden, 1965; Starkweather, 1964). Paralanguage has emerged as an increasingly useful behavioral measure in studying the individual's expression of affect and attitudes. Because of the low speaker awareness of paralinguistic components of communication, this channel is of particular importance in understanding unintended communication of attitudes; that is, measures of paralanguage are relatively nonreactive (Bugental, Henker, & Whalen, 1976). Thus, vocal intonation or paralanguage is of particular interest because it combines low awareness for the speaker with high salience for the listener (Bugental, 1974; Mehrabian & Wiener, 1967).

In 1972, Brown, Birley, and Wing described and defined the affect ratings of the EE index. Both negative and positive remarks were counted, and overall ratings of hostility, warmth, emotional overinvolvement, and dissatisfaction were made. Of these, negative remarks and warmth were the ones most dependent on vocal or paralinguistic cues. As a way of dealing with contradictions and ambiguities in the individual's expression of feelings, the ratings for

positive and negative affect are now rated separately. All scales run from the absence of a single trait to its presence in marked form.

Work carried out over the last decade has provided good evidence that the concept of Expressed Emotion is both valid and reliable. A robust association has now been demonstrated between the level of negative Expressed Emotion by a key relative toward a schizophrenic patient at the time of admission or during the patient's stay in hospital and psychiatric morbidity in the 9-month period subsequent to discharge (Brown, et al. 1972; Vaughn & Leff, 1976a; Vaughn et al. 1984). The negative Expressed Emotion relapse association has also been found to persist over a two-year follow-up period (Leff & Vaughn, 1981). The U.C.L.A. Family Project further demonstrated that a negative critical attitude in parents of nonpsychotic disturbed adolescents predicted the onset of schizophrenia-spectrum disorders in a five and 15-year follow up of this sample (Goldstein, 1985). Thus, it appears that the Expressed Emotion index measures attitudes involved in both the onset and course of schizophrenia and related disorders.

Although shown to be a reliable and valid instrument, in its original form the interview sometimes took as long as four or five hours to administer. An analysis of 15 tape-recorded interviews from the Brown et al. (1972) studies showed that the majority of critical comments were produced within the first hour and there was virtually no relationship between total number of critical comments and length of interview ($r=0.08$) (Vaughn, & Leff, 1976b). Continuing in that direction, Wynne and Gift (1978) at Rochester University compared the ratings obtained from the Camberwell Family Interview Schedule and the ratings obtained from five-minute speech samples. The results were impressive; they

obtained 75 percent correspondance with two different raters and 89 percent correspondance when ratings were made by the same person. Therefore it was concluded that evaluations of expressed emotion based on five-minute speech samples were sensitive enough to discriminate high from low negative EE families. One critical comment defined the high negative EE families and the absence of critical comment characterized the low negative EE families. In all previous studies of expressed emotion the most significant cutoff points between high and low negative expressed emotion were five or six critical comments in interviews of more than one hour. At either of those cutoff points results consistently reached significance in predicting relapse. Consequently, it is reasonable to expect that a cutoff point of one critical comment in a five-minute speech sample will allow us to discriminate between groups meaningfully.

It is assumed that negative attitudes toward an offspring are translated into highly emotional face-to-face encounters between that relative and the index case which result in a noxious affective environment in the home. Tarrier, Vaughn, Lader, and Leff (1979) demonstrated that in the absence of high and low negative EE relatives, schizophrenic patients showed highly aroused physiological response patterns. Subsequent to the Low negative EE relatives entering the room, the response of patients habituated. However, in the presence of the High negative EE relatives, the patients showed no habituation. These intriguing results were later partially replicated by Sturgeon, Kuipers, Berkowitz, Turpin, and Leff (1981).

A recent study by Valone, Goldstein, and Norton (1984), has examined the psychophysiological reactivity of both parents and their

disturbed adolescent offspring during direct family confrontations. The results provide evidence that direct encounters between high negative EE individuals and their offspring are more emotionally arousing than the face-to-face interactions which take place within low negative EE families. Generally, the results described by Valone et al. (1984) support findings from earlier studies and are of value in that they extend those findings to a nonschizophrenic population. It has also been shown (Valone, Norton, Goldstein, & Doane, 1983) that high negative EE parents of disturbed but nonpsychotic adolescents manifested significantly more mild and harsh criticisms in direct interactions with their offspring than did low negative EE parents. All these reports strongly support the hypothesis that face-to-face encounters between high negative EE relatives and the index case are in fact more emotional than comparable direct interactions between low negative EE family members.

High and low negative EE families can be discriminated in terms of what they say and how they seem to cope with similar situations. High negative EE families tended to blame the person, and not to see the changes in behavior as due to anything but an intensification of previously noted faults. Low negative EE relatives were better at attributing behavior as due to some cause other than the person's fault. High negative EE families cope least well with crises and are most worried and upset. In contrast, low negative EE families are more tolerant and cope with incidents calmly. Thus, ratings of EE appear to be a way of assessing different attitudes and coping responses in relatives when faced with disturbed behaviors in a family member (Vaughn, 1977).

In the U.C.L.A. project two measures of affective attitude were used, a measure of Expressed Emotion (EE) and a measure of Affective Style (AS) (Goldstein, 1985). Parents were categorized as high or low negative EE, based on the criticism criterion and then formed into parental groups as follows: Dual High negative EE, where both parents are high; Mixed negative EE, where one parent is high and the other low; and Dual Low negative EE, where both parents are low EE. The Affective Style measure is derived from directly observed interactions during which family members discussed conflictual problems. It is constructed as a transactional analogue of the EE index.

At a 15 year follow up, almost all schizophrenic spectrum cases occurred in families where either one or both parents expressed the high negative EE attitude and the negative AS behaviors. Of the four cases of schizophrenia in the sample all four came from homes in which both parents expressed high negative EE attitudes towards the offspring and the interactive behavior of the parents was rated as negative AS. However, if parents showed a negative affective style with a teenage offspring when discussing a personally relevant family problem, but did not manifest a high negative EE attitude in an interview outside of the teenager's presence, the prediction to outcome was not very good. Since previous studies (Miklowitz, Goldstein, Fallown, & Doane, 1984; Valone, et al. 1983) have revealed that high negative EE attitudes and negative affective style behavior co-exist in a number of persons, it appears that a negative transactional affective style may be more situation specific. Moreover, negative attitudes in an interview outside of the teenager's presence may reflect an attitude which is chronically present as a background factor in the ongoing transactions of a family. Within a

more benign historical context, even a sharply critical interaction may not signify as malignant a quality of family life as would appear at first glance.

In fact the EE attitude has been suggested to be trait-like (Hooley, 1985). High negative EE relatives, may be individuals who attempt to cope by trying to exert control over what may actually be an uncontrollable behavior in an offspring. The view of the high negative EE relative as the controlling member of the relationship also fits in well with the general concept of EE. A relative is rated as being critical because he or she makes it clear that there are aspects of the offspring's personality or behavior that he would like to be different. High negative EE relatives, as judged by both their reported behavior toward the patient and their behavior during interview are also considered to be less tolerant and accepting of the patient (Vaughn & Leff, 1981). That they may actively work towards effecting the sort of changes they desire is sometimes evidenced by the critical remarks they make.

Because negative EE has been found to relate to onset as well as course of schizophrenia, it would be useful to document its relationship to behavioral indices of risk. Both aggression and withdrawal have been implicated as patterns that characterize the behavior of preschizophrenics (Bower, Shellhammer, & Daily, 1960; Bowman, 1934; Mednick & Schulsinger, 1970; Morris, Soroker, & Burruss, 1954; Robins, 1972; Watt, Stolorow, Lubensky, & McClelland, 1970; Wittman, & Steinberg, 1944). Aggressive behavior is defined broadly to include physical aggression, disruptiveness and attention-seeking; while withdrawal refers to a pattern involving shyness, oversensitivity, and

social isolation.

The consistent implication of both aggressive and withdrawn behavioral patterns in previous studies of preschizophrenic adjustment argued for their selection as the dimensions of a broad-spectrum behavioral index of schizophrenia proneness. Furthermore, factor analytic studies have repeatedly identified aggression (also labelled conduct problems, acting out, or externalizing behavior) and withdrawal (also labelled personality problems, overcontrolled or internalizing behavior) as the major components of social deviance in children (Quay, 1979).

Among the first to examine the effects of differing parental attitudes upon children with different types of maladjustment were Hewitt and Jenkins (1946). Corresponding to three behavioral patterns: overinhibited, unsocialized aggression, and socialized delinquency, they defined three situational patterns of family environment: "family repression", "parental rejection" and "parental negligence". The authors found that both a repressive family environment and physical disorders were likely to produce an overinhibited behavior in the child. A youngster with a background of parental rejection was apt to develop unsocialized aggressive ways of acting while parental neglect was strongly associated with subsequent socialized delinquent behavior on the part of the child. Morris, Escoll, and Wexler (1956) found that there was open rejection of the child on the part of one or both parents for children diagnosed as showing what the authors labelled "aggressive behavior disorders". Parents were considered as openly rejecting if they met any one of five criteria, one of them being open and constant expression of dislike for the child.

The literature on child-rearing antecedents of aggressiveness (e.g. Becker, 1964) presents the father of aggressive children as negatively controlling (evaluatively extreme, directing, and negative) and socially independent (low amount of talking). The relationship between maternal punitiveness and child aggressiveness outside the home is also well established (e.g. Becker, 1964; Sears, Whiting, Nowlis, & Sears, 1953). The mother expresses her negative evaluation in such a way as to preclude or limit an immediate negative response. This manner seems to effectively constrain the child from responding with anger toward his or her mother and instead express his or her aggression in the "safer" school environment (Bugental, Love, Kaswan, & April, 1971). In general, aggressive children come from homes in which parents are rejecting and punitive (Bandura & Walters, 1959; McCord, McCord & Howard, 1961; Sears et al. 1953). Hostility and rejection are overtones which enter into the general and more inclusive relationship which parents of conduct problem children have with their offspring (Schulman, Shoemaker, & Moelis, 1962). Fathers of socially withdrawn children, by contrast, are reported by Bugental, Love and Kaswan (1972), as not controlling (evaluatively neutral and nondirective) and socially dependent (high amount of talking) in a presumably anxiety-inducing situation.

The recent emphasis on social-cognitive dimensions has directed attention toward parental knowledge, expectations, and perceptions as crucial influences on the development of children's atypical social behaviors. Studies by Lobitz and Johnson (1975) and Griest et al. (1980) have indicated, for example, that parent perception measures are more discriminative of the child's clinic referral status than the child's observed behavior. Ross (1974) has stressed the importance of the

parent's tolerance level in influencing the parent's perceptions of the child and the need for clinic referral. Social isolation and marital conflicts are two factors which result in lower tolerance by reducing the chance of parents to receive the support they need. Reduced tolerance makes the parents less likely to respond by helpful feedback to inappropriate children behaviors. Maternal depression seems to be one of the best predictors of maternal perception of children (Greist, Wells, & Forehand, 1979). Furthermore, Christensen, Phillips, Glasgow, & Johnson (1983) found a significant relationship between parental perception of child behavior problems and parental negative behavior toward the child, but no significant relationship between parental perception of child's problems and child's behaviors. Siblings of target children in referred families have also been identified as having as high a rate of deviant behavior as the target but were spared the negative label. (Arnold, Levine, & Patterson, 1975). Thus, previous research is pointing to the reduction of the importance of the child's behavior in the labelling of deviance.

Recently, Bugental and Shennum (1984) looked at the intervening role of belief structures and knowledge, and provide strong supportive evidence for reciprocal adult-child effects as moderated by caregiver attributions. Adults' attributions act in a self-fulfilling fashion, that is, the communication patterns that follow from caregiver beliefs act to elicit child behavior patterns that maintain those beliefs.

However, a sobering set of findings has been emerging from studies of intrafamilial correlations in personality characteristics. Biologically unrelated children growing up in the same household are shown to be quite dissimilar with respect to personality characteristics

(Rowe & Plomin, 1981; Scarr, Webber, Weinberg, & Wittig, 1981). Even for biologically related siblings, correlations are low. These findings imply that there is very little impact from the environment that parents provide for children and very little impact from parental characteristics that must be essentially the same for all children in a family, for example, education or the quality of the relationship between spouses. Indeed, the implications are either that parental behaviors have no effect or that the effective aspects of parenting must vary greatly from one child to another within the same family. We do not doubt that there is a great deal of variance within families in the quality of the relationships parents have with each individual child. Some of the variance is accounted for by birth order (Lasko, 1954; Rothbart, 1971; Snow, Jacklin, & Maccoby, 1981) and by sex of the child (Block, 1979; Maccoby & Jacklin, 1974); other factors such as the temperamental match between parent and child, no doubt enter in as well.

There is also now a literature which documents the impact of the child on parent behaviors. These studies have demonstrated reliable relationships between a variety of common "difficult" child behaviors and adult reactions. Child behaviors such as inattention and distractability (Chapman, 1979), uncontrollability (Bugental, Caporeal, & Shennun, 1980), defiance (Parke & Sawin, 1977), impatience (Matthews, 1977), low person orientation (Keller & Bell, 1979), unresponsiveness (Cantor & Gelfand, 1977), anger and negativity (Teyber, Messe, & Stollak, 1977), task failure (Mulhern & Passman, 1979), failure to imitate (Bates, 1975), and nonverbal unresponsiveness (Bates, 1976) have been shown to engender a variety of seemingly adverse adult reactions. These include the use of power-assertive, negative, and controlling

disciplinary tactics; unassertive and weak communication styles; ridicule and interrogation; and frequent use of punishment.

In a thorough review of the parent-child interaction research from 1960 to 1970, Walters and Stinnett (1971) concluded that "the era of viewing children as solely products of their parents' influence is past, for it is recognized that children themselves exert powerful influences upon the parent-child relationship" (pp.100-101). In fact, in the course of popular and scientific explanation of the development of children's social behavior, there has been an increasing movement toward the use of interactive causal notions. In this orientation, dysfunctions in the parent-child interaction account for the child's deviant conduct (e.g., Patterson, 1982). The main tenet of interactional models is that members are mutually interdependent and influence one another in a reciprocal or circular fashion. Intrafamilial reciprocal influences have been defined by Bell (1979) as "a moving bidirectional system in which the responses of each participant serve not only as the stimuli for the other but also change as a result of the same stimulus exchanges, leading to the possibility of altered response on the part of the other" (p.822).

In the interactional context, a response is no longer simply a dependent variable, or simply an independent variable. Instead, a response both sets the stage for a subsequent response and alters the nature of subsequent stimuli that in turn alter future responses. Patterson (1976) argued strongly that children and parents alike are both victims and architects of their interactions with each other. A large body of empirical literature is consistent with the interactional viewpoint. Family observation studies have shown higher rates of parental negative behavior, higher rates of parental commands, higher

rates of child negative behaviors, and lower rates of child compliance in families with behavior problems versus matched families with "normal" children (Forehand, King, Peed, & Yoder, 1975; Griest, Forehand, Wells, & McMahon, 1980; Lobitz & Johnson, 1975; Patterson, 1982).

Laboratory investigations also demonstrate the reciprocities that frequently characterize social interaction in disturbed families. That is, negative responses lead to negative ones, and positive responses to positive ones. There is evidence to suggest that some of the interactional difficulties in disturbed families may reflect a failure to respond reciprocally to prosocial behavior of other family members (Patterson, 1982; Raush, 1965). For example, mothers of hyperactive children react less favorably, even when their child initiates appropriate interaction (Cunningham & Barkley, 1979; Mash & Johnston, 1982). This may reflect the fact that positive behaviors occurring in the context of a negative relationship may not be perceived as positive.

The contribution of parental characteristics to children's personality development, however, may best be understood in the context of an interactive system between parent and child, a system that is in some respects unique to each parent-child relationship, even within the same family. In general when a child is perceived as atypical or difficult the amount of parenting-related stress increases dramatically (Bell & Harper, 1977). When the child's problem is perceived as major or persistent the parental report of distress and negative affect has been found to increase (Weinberg & Richardson, 1981). There is a need to consider the relationship between a child's difficulty and family dysfunction. An observed association between a child's problem and some family characteristics may be viewed as: a primary etiological factor

underlying the child's problem, a compensatory reaction to some innate child characteristic, a secondary reaction to the child's problem that was produced by some earlier mode of family functioning or a factor that produces the disorder by interacting with some innate characteristic and continues to exacerbate the problem once it has developed.

During each phase of the development, different problems become foci for parental concern and subsequent reaction. The parents' behavior is controlled in an important way by the inevitable products of the child's growth. When the child's profile begins to deviate from the parents' idea of what it should be, parents typically call upon one or more of four kinds of explanation. Some parents believe that the child's behavior results from temperamental characteristics inherent in the child's biology and is, therefore, beyond the control of both the child and the parent, although destined to vanish with time. Other mothers see the dominant mood of their children as a phase in the universal script for development. A smaller group of parents assume complete responsibility for their child's profile, believing that they have done something to cause the problem behavior. If the child's behavior does not improve, their initial guilt can turn to anger. Other parents attribute most of the child's behavior to the power of environmental forces over which they have little or no control. The smallest group of parents ascribe malevolent intentions to the child, attributing motives to the child that he or she is not yet capable of possessing. This imputation is usually accompanied by hostility toward the child.

The choice of technique to keep the child on course as well as the emotional reaction depend in part on the parent's preferred explanation. Furthermore, the intensity of the parental reaction is most probably

related to the perceived discrepancy between the ideal each parent holds for the stage the child is in, the parents' often unarticulated ideal for the future and the child's performance. The parents' socialization efforts may also be thought of in quite general terms: as aimed at fostering optimal functioning in children. The meaning of this global outcome varies with the child's age, sex, and cultural milieu. However, we may assume that any definition includes the child's being as effective as possible in pursuing whatever goals are appropriate to the child's age and current situation, and growing up to be a well-functioning adult. Family interaction is typically a complex mixture of instrumental actions oriented toward some practical goals, and expressive communication of affect (Parsons and Bales, 1955). The young child's role consists largely of affective relations with the parents, and compared with other family roles, is less concerned with instrumental competence. As the child grows older, parental expectations are oriented more and more toward instrumental competence including its social dimension (Freeman, & Simmons, 1958).

Kagan (1984) stresses that for most contemporary American mothers, the distant ideal rests on five abstract qualities: autonomy, intelligence, humaneness, sociability, and control of fear. The child must learn to operate independently of the family, to master school tasks, to be kind to and liked by other children, and to be unafraid of challenge or attack. When the child's behavior violates any of these ideals, parents move into action.

Social competence has been evaluated based on the amount and quality of the child's participation in sports, hobbies, games, activities, organizations, jobs, chores and friendships; how well the

child gets along with others and plays and works by himself/herself; and school functioning (Achenbach, & Edelbrock, 1981). An examination of the social competence literature (O'Malley, 1977; Sundberg, Snowden, & Reynolds, 1978) indicates that much of the research has focused on the nature of the individual's overt behaviors. As O'Malley (1977) notes, the nature and frequency of behavior patterns are often used to define social competence. In a series of studies of social competence, Gottman and his colleagues investigated the peer interactions of children in their homes (Gottman & Parkhurst, 1977) and in school (Gottman, 1977; Gottman, Gonso, & Rasmussen, 1975), focussing upon the frequency of social contacts and the sequence of communications within these interactions. Ratings of children's behavior were found to relate positively to peer ratings of popularity (one way of operationalizing social competence). Behavioral ratings were also significantly related to sociometric ratings in other studies (e.g. Hymel & Asher, 1977; Singleton & Asher, 1977).

Clearly, involvement with peers reflects the child's capacity to create sustained and mutually regulated relations with others, to achieve effective emotional regulation, and to adapt to the environment. If a child does not relate to peers, a direct consequence will be a limited opportunity for involvement outside the family. Moreover, peer interaction appears central in childhood socialization, contributing to the acquisition of social and communicative competencies in a manner that is unlike the contributions made by interaction with adults (Roff, Sells, & Golden, 1972).

Research on the behavioral concomitant of low peer status has focussed on two groups of children: those who are aggressive and

disruptive, and those who are socially withdrawn or isolated.

Aggressive, aversive, task inappropriate and "negative" behaviors have frequently been correlated with social rejection (Dodge, Coie, & Brakke, 1982; Gottman, 1977; Hartup, Glazer, & Charlesworth, 1967; Vosk, Forehand, Parker, & Rickard, 1982). Dodge (1983) found second-grade boys who were rejected in new groups of peers to engage in more inappropriate behavior and more physical aggression than non-rejected boys. Similarly, Coie and Kupersmidt (1983) found that fourth-grade boys who were rejected in their classroom setting were extremely active and aversive in a new play group situation, and were also rejected in that new group within three play sessions.

In addition to aggression, social isolation or withdrawal has been studied in relation to peer status. Gottman (1977) found children low on peer acceptance to be high on a set of shy, anxious and fearful behaviors. Hymel and Rubin (in press) reported significant correlations between social isolation and poor peer acceptance in children in grades 2 through 6, and moreover, that the relation between isolation and poor peer acceptance increased with age. Ledingham (1981) reported that children who were withdrawn (grade 4) or both aggressive and withdrawn (grades 4 and 7) were rated as less likeable by their peers than their nondeviant classmates.

Adolescents "at risk" for schizophrenia are also more impulsive and less popular than matched individuals who are not at risk (Grubb & Watt, 1979). Poor peer relations are embedded in the life histories of individuals who are "at risk" for emotional and behavioral disturbance. "Not getting along" with other children may simply reflect general difficulties in life course development or again, may contribute its own

variance to the etiology of psychopathology.

In humans and most other mammals, parents are the first to regulate the intensity and extensity of behavior so that they or others can enjoy as well as tolerate and benefit from the activity of the young. It is noteworthy that one of the few productive lines of research on the effects of parents on children has been Baumrind's (1973) demonstration of the importance of parental guidance and control versus permissiveness in relation to child competence. In summary, the research literature suggests an intimate association between family interaction patterns and the atypical social behaviors and social competence of children.

Clearly, if family interaction patterns do have any impact on the nature of a child's skills and behavior tendencies as displayed outside the home, the effect must be on a portion of the behavioral variance that has some stability across time or situations or both. It has already been demonstrated (Moskowitz, Schwartzman & Ledingham, 1985) that for many children the problems of aggression and withdrawal are not transitory. Thus, social competence and social deviance appear to be targets that are worth studying in the sense that they reflect something more than momentary situational pressures. In parallel, Expressed Emotion (EE) also has been found to reflect a chronic parent attitudinal style (Goldstein, 1985) and is worth studying in the context of the child's usual ways of functioning.

The present study examined the relationship between parental affective attitudes towards a child and the child's social deviance and competence. Aggressive children, withdrawn children, aggressive-withdrawn children, and nondeviant control children were identified by

peer ratings. The highly salient deviance of the aggressive-withdrawn group in comparison to other target groups was demonstrated in a preceding study (Ledingham, 1981). Therefore, the aggressive-withdrawn group was expected to show a consistent deviance across measures.

Based on the literature, it is reasonable to suppose that children can have effects on how adults behave. The first two hypotheses addressed this question. It was predicted that:

(1) Children identified by their peers as socially deviant would be more likely than normative children to be the target of parental criticism and less likely to receive positive statements from their parents. Among the socially deviant children a greater number of peer identified aggressive-withdrawn children would be the target of parental criticism, and a smaller number would receive positive statements from their parents, followed in a hierarchy by the peer identified aggressive children, and then the peer identified withdrawn children.

(2) Children identified by their peers as socially deviant would be more likely than their siblings to receive parental criticism and less likely to receive positive evaluations from their parents while normative children are as likely as their siblings to be the target of parental criticism and to receive positive evaluations from them.

When a parent perceives his or her child as deviant it may be that this child has problems in social or personal adjustment. However, it could be that parental maladjustment such as social isolation, psychological difficulties or marital conflicts may induce parents to perceive disturbed functioning in their child's behavior (Friedlander, Weiss, & Traylor, 1986; Griest et al. 1980). In the present study the

third hypothesis addressed this question:

(3) Parents characterized by psychological difficulties, limited social support and/or poor marital adjustment were expected to be more critical and to express fewer positive statements toward their child than parents who do not show these characteristics.

The fourth hypothesis dealt with the cumulative effects of child deviance and negative parental attitude on the child's social competence:

(4) Children identified by their peers as socially deviant were expected to be less socially competent than normative children. Among the socially deviant children, those identified by their peers as aggressive-withdrawn were expected to be the least socially competent. Those identified as withdrawn were expected to be less competent than those identified as aggressive. Within each peer class, social competence will be lowest for children whose parents show more negative attitudes.

Method

Subjects

The subjects were 405 French speaking youngsters attending French language schools in Montreal who were part of a larger longitudinal study of children at risk for schizophrenia (Concordia High Risk Longitudinal Study, Centre for Research in Human Development, Concordia University) (Schwartzman et al., 1985).

Subjects were assigned to one of four groups on the basis of their score on a French translation of the Pupil Evaluation Inventory (Pekarik, Prinz, Liebert, Weintraub & Neale, 1976), (see Appendix A).

The Pupil Evaluation Inventory (PEI) contains 35 items which load onto three factors: aggression, withdrawal and likeability. To administer the PEI, children in first, fourth and seventh grade were asked to nominate those boys and girls in their class who best fitted the description of each of the 35 items on the questionnaire. Boys and girls were rated in separate PEI administrations, and for each item, children were allowed to nominate up to four classmates of each sex.

The total number of nominations received by each child was calculated separately for items loading on the aggression factor and the withdrawal factor. Raw scores for each factor were transformed using a square root transformation to reduce skew. They were then converted to Z scores for each sex within each class to remove the effects of age or sex in baseline rates of aggression and withdrawal, and the effect of differences in class size on total scores. In this manner, classification of target subjects took into account age, sex and classroom specific norms of behavior that would have been confounded using raw scores.

Those subjects who obtained a Z score on the aggression factor, exceeding the 95th percentile and withdrawal Z scores below the top quartile were designated as aggressive. Similarly, those assigned to the withdrawn group obtained Z scores on the withdrawal factor exceeding the 95th percentile and aggression Z scores below the top quartile. Those scoring in the top quartile on both aggression and withdrawal were assigned to the aggressive-withdrawn group. Nondeviant subjects were chosen randomly from among those children below the 75th percentile on both aggression and withdrawal scores (Ledingham, 1981).

There were 1700 students who met the above criteria. There were 405

target children families from whom speech samples were obtained. The percentages of children for whom the parents agreed to participate in each group were approximately equal: aggressive group = 27%, withdrawn group = 26%, aggressive-withdrawn group = 23%, and control group = 22%. The group sizes were: aggressive, $n = 51$; withdrawn, $n = 56$; aggressive-withdrawn, $n = 57$; control, $n = 241$. The proportions in each group were approximately similar to those of the Concordia High Risk population: aggressive = 12%, withdrawn = 14%, aggressive-withdrawn = 14%, control = 60%. A breakdown of the 405 subjects by Pupil Evaluation Inventory (PEI) classification, sex and grade is given in Table 1.

To examine the possibility of systematic bias in the representation of peer classification groups in the present study subsample, analyses were conducted on the degree of aggression and withdrawal in the sample for which parents agreed to participate relative to those whose parents refused to participate, or were not found.

A one-way MANOVA was calculated for each peer classification group. The independent variable was participation status, and the dependent variables were the aggression and withdrawal scores. There were no significant differences in the scores on aggression or on withdrawal as a function of participation status for the aggressive, the aggressive-withdrawn and the control groups. The MANOVA test was significant for the withdrawn group $F(1,544) = 6.75, p < .09$. A univariate F test revealed a significant difference in the scores on aggression as a function of participation status for this group. A non significant difference was found in the scores on withdrawal for this group; the mean score of those children for whom the parents agreed to participate in the present

Table 1

Sample frequencies by Pupil Evaluation Inventory (PEI) classification, sex, and grade

	PEI classification			
	Aggressive	Withdrawn	Aggressive- Withdrawn	Nondeviant
Boys				
Grade 1	9	9	14	51
Grade 4	10	14	11	37
Grade 7	6	8	6	21
Girls				
Grade 1	7	8	16	65
Grade 4	13	5	9	41
Grade 7	6	12	1	26
Total	51	56	57	241

N=405

study was $-.70$, and the mean score of those children for whom the parents refused to participate or were not found was $-.52$. Overall, the subsample tested in the present study was representative of the sample from which it was drawn with respect to peer classification groups. The withdrawn group, however, scored relatively higher on aggression although in terms of withdrawal they were representative.

The likability scale of the Pupil Evaluation Inventory (Pekarik et al., 1976) was used as a measure of social competence. The Pupil Evaluation Inventory contains 35 items which load on three factors: aggression, withdrawal, and likability (items such as "those who help others" and "those whom everybody likes"). Each class was asked to nominate up to a maximum of four boys and four girls in the classroom who best fitted the description of each item on the questionnaire. Boys and girls were rated separately by the class in two consecutive administrations within the session. The total number of nominations received for each child was calculated separately for items loading on the aggression factor, the withdrawal factor, and the likability factor. Total nomination scores for each factor were subjected to a square root transformation to reduce skew, and converted to Z scores for each sex within each class to remove the effects of sex differences in baseline rates of aggression and withdrawal and the effects of differences in class size on total scores. The three social competence scales of the French translation of the Child Behavior Check List (CBCL) (see Appendix B) described by Achenbach and Edelbrock (1983), were also used to evaluate the child's social competence. The 20 social competence items consist of the child's report of the amount and quality of his/her participation in sports, hobbies, games, activities, organizations,

jobs, chores and friendships; how well he/she gets along with others and plays and works by himself/herself; and school functioning. Normalized T-scores were derived from nonclinical samples and comparison of clinical and nonclinical samples showed significant differences on all social competence scores (Achenbach & Edelbrock, 1979). One-week test-retest correlations averaged .87.

Parental measures

The five parental measures used in the present study were administered during home visits as part of a more extensive test battery. The subjects' mean age at the time of the administration of the parental measures and subject's testing was 15.6 (SD 2.11). The subjects' testings and parental interviews were done four to seven years after the classroom administration of the PEI.

The Negative Expressed Emotion (NEE) index was derived from two scales (criticism and hostility) originally developed as part of the Expressed Emotion index by Brown and Rutter (1966). The Positive Expressed Emotion (PEE) index is the exact counterpart of the Negative Expressed Emotion (NEE) index (see Appendix C). Originally the rating was based on a four to five-hour interview. For the present study we used the abbreviated procedure developed by Wynne and Gift (1978) which consists of the recording of a five-minute speech sample where the parent is asked to describe a particular child and his/her relationship with this child. In all previous studies of expressed emotion the most discriminating cutoff points between high and low expressed emotion were five or six critical comments in interviews of more than one hour. Since Wynne and Gift (1978) obtained high correspondance between ratings obtained from more than two-hour interviews and ratings obtained from

five-minute speech samples, we expect to be able to discriminate meaningfully between high and low expressed emotion with a cutoff point of one critical comment in a five-minute speech sample.

The five-minute speech samples were obtained from 374 mothers and 238 fathers talking about a target youngster. During the course of these interviews, we became interested in the specificity of Expressed Emotions in the family. A supplementary procedure was then introduced as we decided to collect speech samples from the parents expressing themselves about a sibling of the target child. Five-minute speech samples were obtained from 84 mothers and 52 fathers talking about a sibling of the target youngster. A breakdown of speech samples about target youngsters and siblings by Pupil Evaluation Inventory (PEI) classification, sex of the parent and sex of the target youngster is given in Table 2. If the target subject had more than one sibling, the parent was asked to talk about the same sex sibling most closely related in age to the target subject. If two same sex siblings were equally distant in age, the older one was selected. If the same sex sibling was more than three years older or younger than the target subject and a sibling of the opposite sex was more closely related in age, the latter one was selected.

Based on their speech samples the parents were classified as high or low on the Negative and Positive Expressed Emotion scales. They were considered high on the NEE, if at any time in the five-minute speech sample, an unfavourable comment (criticism) about the behavior or personality of the child was expressed. A comment was considered critical based on vocal and verbal aspects of speech. Parents were classified as high on the PEE if at any time in the five-minute speech

Table 2

Speech sample frequencies for target children and siblings by Pupil Evaluation Inventory (PEI) classification, sex of the parents, and sex of the target children

	PEI classification			
	Aggressive	Withdrawn	Aggressive- Withdrawn	Nondeviant
Boys				
Mothers Targets	24	26	31	99
Siblings	6	8	2	22
Fathers Targets	14	17	14	67
Siblings	2	7	1	16
Girls				
Mothers Targets	23	24	26	121
Siblings	3	6	4	33
Fathers Targets	16	12	16	82
Siblings	2	3	3	20
Total	90	103	97	460

N=750

sample a favourable comment about the behavior or personality of the child was expressed. A comment was considered favourable based on vocal and verbal aspects of speech.

Two raters independently evaluated the audiotapes. The first rater was the author of the present study and was trained to use the Expressed Emotion Rating System (Leff & Vaughn, 1985) during a one-week workshop conducted by Dr. Robert E. Cole at Rochester University. The author as rater attained a reliability of .89 which was satisfactory according to Dr. Cole (personal communication, July 15, 1985). The second rater received 10 hours of training and attained a percentage of agreement with the first rater of 94 per cent on practice tapes.

During the rating of the subjects' tapes, interrater reliability was checked regularly to prevent drift. The two raters were French-speaking and blind as to which group the subjects had been assigned. Speech samples coming from the same family were rated at different times, or one rater was assigned the mother speech sample while the other rater was assigned the father speech sample to minimize carry-over biasing effects.

A French translation of the Provisions of Social Relations scale (PSR) described by Turner, Frankel and Levin (1983) was completed by each parent (see Appendix D). This measure assesses their subjective experience of social support from friends and family. The instrument consists of six items assessing support from family, and nine items measuring support from friends. Items are rated on a five-point scale ranging from "very much like my experience" to "not at all like my experience". Scores range from 0 to 30 for family support, from 0 to 45 for friend support, and from 0 to 75 for the total score. A high score

represents a low level of perceived social support. The PSR correlated significantly with the Revised Kaplan Scale, a measure of subjective social support. The correlation between the PSR and the Revised Kaplan Scale was .62 in both a sample of physically disabled subjects and a sample of ex-psychiatric patients (Turner, Frankel, & Levin, 1983).

Individual psychopathology of parents was assessed with a French translation of the Symptom Check List-90 (SCL-90), a self-report symptom inventory developed from the Hopkins Symptom Check List (Derogatis, Lipman, & Covi, 1982) (see Appendix E). This measure consists of 90 items which are rated on a five-point scale ranging from "not at all" to "extremely". It provides scores for nine symptom scales (Somatization, Obsessive-Compulsive, Interpersonal Sensitivity, Depression, Anxiety, Hostility, Phobic-Anxiety, Paranoid Ideation, and Psychoticism). Internal consistencies, measured by coefficient alpha, ranged from .77 to .90 for these dimensions in a sample of some 200 symptomatic volunteers. Test-retest reliabilities over a one-week period ranged from .78 to .90 in a sample of 94 psychiatric outpatients (Derogatis, 1977). The SCL-90 scales were found to correlate significantly (.42 to .66) with MMPI scales measuring similar or clinically related constructs (Derogatis, Rickels & Rock, 1976).

In order to evaluate marital adjustment the French translation of the Short Marital Adjustment Test (SMAT), a widely employed measure of marital satisfaction defined as accommodation of husband and wife to each other at a given time (Locke & Wallace, 1959), was administered (see Appendix F). This test consists of 15 items assessing various aspects of the marital relationship, such as frequency of disagreements and degree of shared interests. Responses are scored according to weights provided

by Locke and Wallace (1959). Scores range from a minimum of 2 to a maximum of 158 points, with higher scores representing better adjustment. Split-half reliability was found to be high as shown by a Spearman-Brown coefficient of .90. Evidence that subjects from maladjusted marriages obtained significantly lower SMAT scores than subjects from well-adjusted marriages provided support for the discriminative validity of the scale (Locke & Wallace, 1959).

Results

Preliminary chi-square analyses were conducted to detect any significant association between Negative Expressed Emotion (NEE) or Positive Expressed Emotion (PEE) classifications and the sex of children or the socio-economic status of the family. None of the chi-squares were significant. Based on these results it was concluded that the sex of children and the socio-economic status of the family had no impact on parental attitude as measured by the Negative Expressed Emotion scale or the Positive Expressed Emotion scale.

Parental Attitude in Groups of Socially Deviant and Nondeviant Children.

Among children identified by their peers as socially deviant or nondeviant, a greater proportion of socially deviant children were expected to be the target of parental criticism and a smaller proportion was expected to receive positive statements from their parents. Among the socially deviant children a greater proportion of peer identified aggressive-withdrawn children was expected to be the target of parental criticism and a smaller proportion were expected to receive positive statements from their parents, followed in a hierarchy by the peer identified aggressive and then the withdrawn children.

Among the 612 parents interviewed about a target child, 56 (15%) of 374 mothers were classified high on the Negative Expressed Emotion scale. Only 11 (4.6%) of the 238 fathers were classified high on the Negative Expressed Emotion scale. As for the Positive Expressed Emotion scale, there were 76 (20.3%) mothers and 39 (16.4%) fathers who were classified high.

Given that there were no a priori reasons to explain the finding that a smaller proportion of fathers than mothers expressed negative emotions, a statistical investigation was conducted. One possibility was that mothers had been selected primarily for more disturbed cases. A test suggested by Cochran (1954) was performed. The observed proportions were weighted, a weighted mean difference was derived and tested for significance. The result indicated that the difference in observed proportion could not be explained by differences in the selection of cases $Z (N=612) = 3.69, p < .01$.

Thus it appears plausible that fathers, in this sample, were generally less expressive of negative affect than mothers. Furthermore, they were as expressive of positive affect as the mothers, as shown in Table 3.

A series of chi-square analyses were conducted to examine the association between parental attitude, as measured by the Negative and the Positive Expressed Emotion scales, and social deviance in children. When deviant versus nondeviant children were considered, a greater proportion of mothers of deviant children were found to be high on the Negative Expressed Emotion scale $\chi^2 (1, N=374) = 15.6, p < .01$. An unexpected finding was the greater proportion of fathers of deviant children who were high on the Positive Expressed Emotion scale $\chi^2 (1,$

Table 3

Observed frequencies of low and high Negative Expressed Emotion (NEE) and Positive Expressed Emotion (PEE) for mothers and fathers

Negative Expressed Emotion (NEE)			
	Low	High	Total
Mothers	318 (85.0%)	56 (15.0%)	374
Fathers	227 (95.4%)	11 (4.6%)	238
Total	545 (89.0%)	67 (11.0%)	612

Positive Expressed Emotion (PEE)			
	Low	High	Total
Mothers	298 (79.7%)	76 (20.3%)	374
Fathers	199 (83.6%)	39 (16.4%)	238
Total	497 (81.2%)	115 (18.8%)	612

N=612

$N=238$) = 4.5, $p < .05$. Chi-squares for mothers' Positive Expressed Emotion classification and fathers' Negative Expressed Emotion classification by children deviant-nondeviant classification were not significant, (see Table 4).

Chi-square analyses were then conducted with the deviant children distributed in their respective groups: aggressive-withdrawn, aggressive, and withdrawn. The mothers' high-low classification on the Negative Expressed Emotion scale was significantly related to the children's classification groups, $\chi^2(3, N=374) = 4.5, p < .01$. The linear trend predicted a priori was then tested and was found to be highly significant $\chi^2(1, N=374) = 21.9, p < .01$. That is, the proportion of mothers classified high on the Negative Expressed Emotion scale was greater for the aggressive-withdrawn children (31.6%), followed by the aggressive children (23.4%), the withdrawn children (16.0%), and the nondeviant children (8.6%), (see Table 5).

Chi-square analyses were conducted in order to examine the relationship between children's classification and mothers' Positive Expressed Emotion classification, and secondly between children's classification and fathers' Positive or Negative Expressed Emotion classification. The results yielded no statistically significant interaction.

In summary, the finding pertaining to the relationship between the mothers' negative attitude and the children's atypical behaviors supported the hypothesis as formulated.

Parental Attitude in Groups of Socially Deviant and Nondeviant Children and their Siblings.

Children identified by their peers as socially deviant were

Table 4

Observed frequencies of low and high Negative Expressed Emotion (NEE) and Positive Expressed Emotion (PEE) for mothers and fathers among deviant and nondeviant children

	Deviant	Nondeviant
Mothers		
Low NEE	117 (76.0%)	201 (91.4%)
High NEE	37 (24.0%)	19 (8.6%)
Low PEE	119 (77.3%)	179 (81.4%)
High PEE	35 (22.7%)	41 (18.6%)
Fathers		
Low NEE	85 (95.5%)	142 (95.3%)
High NEE	4 (4.5%)	7 (4.7%)
Low PEE	68 (76.4%)	131 (87.9%)
High PEE	21 (23.6%)	18 (12.1%)

N=612

Table 5

Observed frequencies of low and high Negative Expressed Emotion (NEE) and Positive Expressed Emotion (PEE) for mothers and fathers by Peer Evaluation Inventory (PEI) classification

		PEI Classification			
		Aggressive -Withdrawn	Aggressive	Withdrawn	Nondeviant
Mothers					
Low NEE	39 (68.4%)	36 (76.6%)	42 (84.0%)	201 (91.4%)	
High NEE	18 (31.6%)	11 (23.4%)	8 (16.0%)	19 (8.6%)	
Low PEE	48 (84.2%)	36 (76.6%)	35 (70.0%)	179 (81.4%)	
High PEE	9 (15.8%)	11 (23.4%)	15 (30.0%)	41 (18.6%)	
Fathers					
Low NEE	28 (93.3%)	28 (93.3%)	29 (100.0%)	142 (95.3%)	
High NEE	2 (6.7%)	2 (6.7%)	0 (0.0%)	7 (4.7%)	
Low PEE	23 (76.7%)	24 (80.0%)	21 (72.4%)	131 (87.9%)	
High PEE	7 (23.3%)	6 (20.0%)	8 (12.1%)	18 (3.4%)	

N=612

expected to be the target of parental criticism more often than their sibling and less likely to receive positive evaluations from them. On the other hand, normative children were expected to be as likely to be the target of parental criticism and to receive positive evaluations from them. In order to test this hypothesis, it was planned to construct and analyse three-way tables (i.e. NEE classification for siblings, by NEE classification for target children, by PEI classification for target children). However, it was not possible to perform such analyses due to the limited sibling sample available resulting in cells that were too small. Two-way tables were then constructed and analysed as an alternative.

Inspection of the Tables indicated that the observed proportions of mothers and fathers classified high in terms of Negative or Positive Expressed Emotion while talking about a sibling were similar to the proportions observed while parents were talking about a target child, (see Table 6).

Chi-square analyses were performed to examine the probability for siblings of deviant children versus siblings of nondeviant children to have parents classified high on the NEE or PEE index. The results indicated that mothers of deviant children were as likely to be highly negative toward a sibling as mothers of nondeviant children $\chi^2(1, N=84) = 1.34, p > .05$. Furthermore, mothers of deviant children were as likely to be highly positive toward a sibling as mothers of nondeviant children $\chi^2(1, N=84) = .67, p > .05$, (see Table 7).

Fathers of deviant children were as likely to be highly positive toward a sibling as fathers of nondeviant children $\chi^2(1, N=54) = .00, p > .05$. Due to the limited sibling sample available, and the low

Table 6

Observed frequencies of low and high Negative Expressed Emotion (NEE) and Positive Expressed Emotion (PEE) for mothers and fathers of target children and their siblings.

Negative Expressed Emotion (NEE)				
	Targets		Siblings	
	Low	High	Low	High
Mothers	318 (85.0%)	56 (15.0%)	73 (86.0%)	11 (13.0%)
Fathers	227 (95.4%)	11 (4.6%)	52 (96.3%)	2 (3.7%)

Positive Expressed Emotion (PEE)				
	Targets		Siblings	
	Low	High	Low	High
Mothers	298 (79.7%)	76 (20.3%)	70 (83.3%)	14 (16.0%)
Fathers	199 (83.6%)	39 (16.4%)	44 (81.5%)	10 (18.5%)

Target N=612

Sibling N=138

Table 7

Observed frequencies of low and high Negative Expressed Emotion (NEE) and Positive Expressed Emotion (PEE) for mothers and fathers of siblings of target children classified as deviant or nondeviant

	Sibling of Deviant	Sibling of Nondeviant
Mothers		
Low NEE	23 (79.3%)	50 (90.9%)
High NEE	6 (20.7%)	5 (9.1%)
Low PEE	26 (89.7%)	44 (80.0%)
High PEE	3 (10.3%)	11 (20.0%)
Fathers		
Low NEE	17 (94.4%)	35 (97.2%)
High NEE	1 (5.6%)	1 (2.8%)
Low PEE	15 (83.3%)	29 (80.6%)
High PEE	3 (16.7%)	7 (19.4%)

N=138

frequency of father classified high on the Negative Expressed Emotion index, it was not possible to conduct further analyses.

In summary these data indicate that knowing that one child in a family is socially deviant does not allow one to predict his or her parents' attitude toward another child in the family.

Parental Attitude and Maladjustment among Parents of Deviant and Nondeviant Children.

Parents characterized by psychological difficulties, limited social support and/or poor marital adjustment were expected to be more critical and to express fewer positive statements toward their children than parents who do not show these characteristics. Stepwise discriminant function analyses were performed using 11 predictor variables: the Provisions of Social Relations (PSR) scale, the Short Marital Adjustment Test (SMAT) scale, and the nine subscales of the Symptom Check List (SCL-90) (Somatization, Obsession compulsion, Interpersonal sensitivity, Depression, Anxiety, Hostility, Phobic Anxiety, Paranoid ideation, Psychotism). The means and standard deviations for each scale for mothers are presented in Tables 8 and 9, and for fathers in Tables 10 and 11.

The results indicate that Anxiety, Paranoid Ideation and Hostility contributed to the differentiation between mothers classified low or high on the Negative Expressed Emotion index, $F(3, 238) = 4.82$, $p < .01$. Depression, Hostility, Somatization, Paranoid Ideation and Provisions of Social Relations contributed to differentiation between fathers classified high or low on the Negative Expressed Emotion index, $F(5, 208) = 3.36$, $p < .01$, (see Table 12).

Table 8

Predictor variables' means and standard deviations for mothers' Negative Expressed Emotion (NEE) classification

	NEE classification			
	Low		High	
	<u>M</u>	<u>SD</u>	<u>M</u>	<u>SD</u>
Somatization	55.10	11.32	57.70	11.64
Obsession Compulsion	59.63	9.45	62.64	8.66
Interpersonal Sensitivity	56.25	10.55	60.13	10.50
Depression	55.78	9.68	60.56	6.90
Anxiety	56.21	10.54	61.83	8.78
Hostility	56.51	10.86	61.72	10.06
Phobic Anxiety	54.25	10.29	56.18	10.80
Paranoid Ideation	57.20	10.94	58.62	10.09
Psychotism	56.51	10.53	59.10	10.55
PSR	34.52	7.81	34.45	9.59
SMAT	92.40	30.64	92.20	31.35

N=242

Note: For the Provisions of Social Relations, the lower the score the greater the social support.

Table 9

Predictor variables' means and standard deviations for mothers' Positive Expressed Emotion (PEE) classification

	PEE classification			
	Low		High	
	<u>M</u>	<u>SD</u>	<u>M</u>	<u>SD</u>
Somatization	55.62	11.38	55.02	11.50
Obsession Compulsion	60.06	9.26	60.23	9.94
Interpersonal Sensitivity	57.17	10.45	55.51	11.30
Depression	56.80	9.36	55.34	9.87
Anxiety	57.38	10.56	55.78	10.09
Hostility	57.44	10.87	56.74	11.03
Phobic Anxiety	55.30	10.60	51.44	8.78
Paranoid Ideation	57.46	11.03	57.23	9.93
Psychotism	57.24	10.59	55.51	10.38
PSR	34.62	8.40	33.74	8.08
SMAT	92.11	30.58	93.42	30.69

N=242

Note: for the Provisions of Social Relations, the lower the score the greater the social support.

Table 10

Predictor variables' means and standard deviations for fathers' Negative Expressed Emotion (NEE) classification

	NEE classification			
	Low		High	
	<u>M</u>	<u>SD</u>	<u>M</u>	<u>SD</u>
Somatization	56.16	11.85	64.88	12.50
Obsession Compulsion	58.89	10.20	64.55	10.10
Interpersonal Sensitivity	57.96	11.55	64.11	8.10
Depression	57.10	10.30	66.77	6.62
Anxiety	58.81	11.20	61.00	7.07
Hostility	53.81	13.28	66.00	6.04
Phobic Anxiety	56.82	10.61	62.22	9.70
Paranoid Ideation	57.68	10.89	59.55	6.22
Psychotism	56.21	10.98	62.88	3.14
PSR	34.07	8.41	38.00	5.59
SMAT	102.96	32.33	98.41	29.93

N=214

Note: For the Provisions of Social Relations, the lower the score the greater the social support.

Table 11

Predictor variables' means and standard deviations for fathers' Positive Expressed Emotion (PEE) classification

	Pee classification			
	Low		High	
	<u>M</u>	<u>SD</u>	<u>M</u>	<u>SD</u>
Somatization	56.74	11.70	55.36	13.53
Obsession Compulsion	58.86	10.05	60.60	11.24
Interpersonal Sensitivity	57.69	11.22	61.15	12.60
Depression	57.32	10.01	58.54	12.06
Anxiety	58.23	10.79	60.96	12.93
Hostility	54.05	12.82	55.79	15.69
Phobix Anxiety	56.80	10.52	58.45	11.15
Paranoid Ideation	57.44	10.45	59.54	12.21
Psychotism	56.18	10.78	58.21	11.21
PSR	34.59	8.24	32.30	8.78
SMAT	101.11	31.47	111.81	34.97

N=214

Note: For the Provisions of Social Relations, the lower the score the greater the support.

Table 12

The discriminant stepwise analyses for groups of Negative Expressed Emotion. (NEE)

on mother NEE groups

Step	Variable	Wilks Lambda	Equivalent F	df	p
1	Anxiety	.96	9.34	1, 240	.01
2	Paranoid Ideation	.95	5.81	2, 239	.01
3	Hostility	.94	4.82	3, 238	.01

on father NEE groups

Step	Variable	Wilks Lambda	Equivalent F	df	p
1	Depression	.96	7.75	1, 212	.01
2	Hostility	.95	5.32	2, 211	.01
3	Paranoid Ideation	.93	4.55	3, 210	.01
4	Somatization	.93	3.82	4, 209	.01
5	PSR	.92	3.36	5, 208	.01

The results presented in Table 13 indicate that Phobic anxiety and Obsession compulsion contributed significantly to the differentiation between mothers low or high on the Positive Expressed Emotion index, $F(2, 239) = 3.36, p < .05$. Marital adjustment, Interpersonal Sensitivity, Somatization, Provisions of Social Relations and Anxiety contributed to the differentiation between fathers low or high on Positive Expressed Emotion index, $F(5, 208) = 2.52, p < .05$.

In summary, the present findings clearly support the hypothesis and indicate that parental attitudes, whether positive or negative toward a child, are a function of the parent's own personal adjustment, and this is so for mothers as well as for fathers.

Parental Attitude and Children's Social Competence

The two measures of children's social competence, the Child Behavior Check List (CBCL) social competence scales and the Pupil Evaluation Inventory (PEI) likability scale, were analysed separately by means of a 4 (PEI classification of the child) by 2 (NEE classification of mothers) analysis of variance. Means and standard deviations are presented in Table 14 and Table 15. It was not possible to perform the same kind of analysis for fathers because certain cells were empty and others were too small.

When the CBCL social competence measure was used as dependent variable, there was a significant main effect for NEE classification, $F(1, 327) = 4.83, p < .05$. The mean score for children whose mothers classified high on the Negative Expressed Emotion index was lower $M = 38.13$ than the mean score of children whose mothers classified low on the Negative Expressed Emotion index $M = 43.04$. There was no significant main effect for child classification, and the child classification by

Table 13

The discriminant stepwise analyses for groups of Positive Expressed Emotion (PEE)

on mother PEE groups

Step	Variable	Wilks Lambda	Equivalent F	df	p
1	Phobic Anxiety	.97	5.32	1, 240	.05
2	Obsessive Compulsive	.97	3.36	2, 239	.05

on father PEE groups

Step	Variable	Wilks Lambda	Equivalent F	df	p
1	SMA	.98	3.11	1, 212	NS
2	Interpersonal Sensitivity	.96	3.72	2, 211	.05
3	Somatization	.95	3.29	3, 210	.05
4	PSR	.94	2.87	4, 209	.05
5	Anxiety	.94	2.52	5, 208	.05

NEE classification interaction was not significant either, (see Table 16).

When the PEI likability scale was used as a dependent variable, there was a significant main effect for child classification, $F(3, 366) = 4.48, p < .01$. The Z -score means for the aggressive, the withdrawn, the aggressive-withdrawn and the nondéviant children were as follows: $M = -.0995, -.1778, -.2870, .1560$. There was no significant main effect for NEE classification but there was a trend for the child classification by NEE classification interaction $F(3, 366) = 1.81, p < .09$, (see Table 17).

These results partially supported the hypothesis. Children of highly negative mothers were lower in terms of social competence as measured by the Child Behavior Check List scales but were considered by their peers as likable as children whose mothers scored low on the Negative Expressed Emotion scale.

Table 14

Means and standard deviations for the Child Behavior Check List (CBCL) social competence scores by the Negative Expressed Emotion (NEE) classification for mothers

		Aggressive	Withdrawn	Aggressive -Withdrawn	Control	Total
NEE Low	<u>M</u>	42.21	40.28	40.54	44.25	43.04
	<u>SD</u>	10.21	9.91	8.63	8.95	9.17
	<u>N</u>	33	35	37	181	286
NEE High	<u>M</u>	38.88	39.00	36.94	38.62	38.13
	<u>SD</u>	8.19	7.50	9.32	10.71	9.30
	<u>N</u>	9	7	17	16	49
Total	<u>M</u>	41.49	40.06	34.15	43.79	
	<u>SD</u>	9.77	9.50	8.84	9.09	
	<u>N</u>	42	42	54	197	

Table 15

Means and standard deviations for the Pupil Evaluation Inventory (PEI) likability scores by the Negative Expressed Emotion (NEE) classification for mothers

		Aggressive	Withdrawn	Aggressive -Withdrawn	Control	Total
NEE Low	<u>M</u>	-.1175	-.0899	-.0933	.1496	.0579
	<u>SD</u>	.21	1.07	.88	1.04	9.17
	<u>N</u>	36	42	39	201	318
NEE High	<u>M</u>	-.0407	-.6394	-.7067	.2238	-.2505
	<u>SD</u>	.75	.77	.70	.86	.77
	<u>N</u>	11	8	18	19	56
Total	<u>M</u>	-.0995	-.1778	-.2870	.1560	
	<u>SD</u>	.74	1.02	.82	.97	
	<u>N</u>	47	50	57	220	

Table 16

Analysis of variance for the Child Behavior Check List social competence scores by Pupil Evaluation Inventory (PEI) classification and Negative Expressed Emotion (NEE) classification for mothers

Child Behavior Checklist social competence scores

Source	df	MS	F	P
Mean	1	220438.31	2595.33	.00
PEI	3	66.88	.79	NS
NEE	1	410.58	4.83	.05
PEI x NEE	3	29.10	.34	NS
Error	327	84.93		

Table 17

Analysis of variance for the Pupil Evaluation Inventory likability Z scores by Pupil Evaluation Inventory (PEI) classification and Negative Expressed Emotion (NEE) classification for mothers

Pupil Evaluation Inventory likability <u>Z</u> scores				
Source	<u>df</u>	MS	<u>F</u>	<u>P</u>
Mean	1	4.25	4.75	.05
PEI	3	4.01	4.48	.01
NEE	1	2.51	2.81	NS
PEI x NEE	3	1.62	1.81	.09
ERROR	366	.89		

Discussion

Family relationships are central to human existence, health, and happiness; a fact that is almost universally recognized. The family may provide a supportive environment, but can also be a potential source of psychological tensions. It is hardly surprising that theorists have implicated psychological pressures from family members in the etiology of most psychiatric conditions.

A major problem in studying family influences on the origin of psychiatric conditions is that there is no way of identifying precisely those individuals who are susceptible to the illness prior to the development of the symptoms. However, there are a few ongoing studies in which cohorts of children identified as being at high risk for developing psychiatric conditions are followed up prospectively. Even if it will be some years before these far-sighted projects begin to yield definitive findings, it is already possible to document the link between family influences and certain indices of risk.

The major goal of the present study was to add to our understanding of the nature and quality of parent-child relationships in a sample of children who had been identified as being at risk to develop schizophrenia. The results clearly support the distinction between peer-identified deviant and nondeviant children with respect to the quality of the relationship in the family.

A greater proportion of mothers of deviant children were shown to hold a negative set of attitudes. The aggressive-withdrawn children were the ones most likely to be criticized by their mothers. The aggressive children were almost as likely as the aggressive-withdrawn children to be criticized. The withdrawn children were the ones among the deviant

children least likely to be criticized by their mothers.

This finding must be further qualified by the fact that only 15% of all mothers were found to express highly negative affect toward their children. As a child, being in a relationship with a mother who is highly negative is not common. The fact that this type of relationship was found more frequently among the aggressive-withdrawn children than among other groups makes the former an unusual group.

The highly salient deviance of the aggressive-withdrawn children was demonstrated in a preceding study (Ledingham, 1981); the aggressive-withdrawn child appears to be similar in several respects to the preschizophrenic. Mothers of aggressive-withdrawn children in the Ledingham study, described them as distractable, overly sensitive and responsive to incoming stimulation, and as needing more contact with adults than other socially atypical and normative children. However, fathers of nondeviant children were as likely to demonstrate negative affect as fathers of deviant children. Our finding that fathers' negative affective style is not related to child deviance is consistent with Doane and Goldstein's (1981) report that the fathers' negative affective style and poor outcome among adolescents were unrelated.

In the present study, fathers were less expressive of negative affect than mothers. In a society where men are expected to control the display of their emotions, this is hardly surprising. The extremely low rate of fathers expressing negative emotions in the present study suggests, that fathers in general may be more reluctant to expose their feelings, and may require a longer exposure to the procedure in order to be able to reveal their emotions. Our inclination to think so is based on cross-cultural studies of Expressed Emotion that have demonstrated

that expression of criticism by the relatives of schizophrenic patients differs across cultures. For example, a study conducted in North India by Menon et al. (cited in Leff & Vaughn, 1985) in two different environments, a western-style city and surrounding villages representing a traditional rural culture, has shown that none of the 31 rural relatives scored high on critical comments, compared with 12 out of 73 urban relatives. This finding suggests that the expression of criticism may be a function of cultural restraints on display of emotions. It is plausible that restraints are even greater in the context of an observational setting as was the case in the present study.

Because positive and negative feelings are often expressed about the same person, problems of ambivalent feelings were dealt with by rating positive expressed emotions independently of any criticism or dissatisfaction that were expressed. A first finding was that the proportion of socially deviant children to receive positive evaluation from their mother was not different from the proportion observed for the nondeviant children. Secondly, it was found that fathers of deviant children were unexpectedly more likely to express positive feelings than fathers of nondeviant children.

The fact that no relationship was found between either mothers' positive attitude or fathers' negative attitude and children's behavioral characteristics suggest that other factors, unrelated to the child, may play a role in determining the quality of parental attitude.

In this study the aggressive-withdrawn child was the most likely to be criticized by his or her mother. If the aggressive-withdrawn children do in fact display levels of greater deviance, we can argue that their mothers' perceptions are accurate, and that their criticisms may be well

founded. The accuracy of parental perception with regard to child social deviance has, however, been seriously questioned recently. A major finding has been the lack of agreement between parent and child regarding reports of the frequency, severity, and duration of the child's symptoms (Kazdin, Esvelt-Dawson, Unis, & Rancurello, 1983; Kazdin, French, & Unis, 1983; Reich, Herjanic, Welner, & Gandhi, 1982). Furthermore, significant discrepancies between parental report of child behavior and the child's behavior are well documented (Rickard, Forehand, Wells, Griest, & McMahon, 1981; Forehand, Wells, & Griest, 1980; Lobitz, & Johnson, 1975). The presence of child behavior disorders has, however, been related to a number of family variables: marital disturbance, parental psychopathology, interactional dysfunctions, and parental cognitive factors such as knowledge, expectations and tolerance of child deviance.

In the present study we have been able to demonstrate that the parents' attitudes toward their child are not solely the function of the child's characteristics. Our findings are consistent with studies that have shown that factors other than the child's objective behavior and symptomatic status contribute systematically to the parents' perception of their child. Specifically, a symptomatology including anxiety, hostility and paranoid ideation was observed more frequently among mothers who were highly negative toward their child. Conversely, a symptomatology of phobic anxiety and obsession-compulsion was observed less frequently among mothers who were highly positive toward their child.

On the other hand, fathers who were highly negative toward their child were found to report more symptoms of depression, hostility,

paranoid ideation, somatization and isolation. In contrast, fathers reporting greater marital satisfaction, more social support, greater interpersonal sensitivity, anxiety and less somatization were consistently more expressive of positive affect toward their child.

We must keep in mind that the disturbed child or the misperceived normal child probably has important reciprocal influences on the disturbed parent (e.g., Patterson, 1982). We can hypothesize a feedback system in the family. As soon as a child presents some sign of maladjustment (which could result in part or globally from his parents' own maladjustment), the poorly adjusted parent, biased in his or her perception, becomes sensitized to respond negatively and to feed into the child's difficulties. Doane and Goldstein (1981) have already demonstrated that, in fact, the best predictor of the eventual course of antisocial behavior is a combined one, that is, an assessment which takes into account not only the quality of initial disturbance in the child and adolescent, but a measure of how the mother responds to it in her interaction with her offspring.

We do not doubt that there is a great deal of variance within families in the quality of the relationships parents have with each individual child. Our data indicated that knowing that one child in a family is socially deviant does not allow one to predict his or her parent's attitude toward another child in the family. In order to probe further in the specificity of parent-child relationships within the family, data concerning the behavioral characteristics of the sibling should be gathered in future research.

In the present study, certain predictions were also formulated concerning the relationship between parental attitude and the child's

social competence. Social competence based on the child's report of social involvement, autonomy, and school functioning was significantly lower for children of highly critical mothers across children's classification. This finding has important implications. If having a highly critical mother is related to limited involvement outside the family, and limited peer interaction, we can argue that the consequences should be highly detrimental for any child, and this could be particularly so for the aggressive-withdrawn child who seems already challenged by the processes of social interaction. Involvement outside the family and peer interaction are essential to the acquisition of social and communicative skills. Any impediment to this process must be of central concern and has important clinical implications.

Perhaps the most important finding of the present investigation is the demonstration of the potential usefulness and sensitivity of the Negative Expressed Emotion index in assessing a non-clinical child population. Furthermore, concern about the need for independent ratings of child behavior from various sources is legitimized by the present findings. Mothers' reports of child maladjustment can perhaps be accounted for by a negative halo effect in that the mothers' own maladjustment leads them to perceive their children as being more poorly adjusted. The recognition of the potential bias in parental perceptions of offspring is important to clinical interventions as well as to research methodology (Emery, Binkoff, Houts, & Carr, 1983).

References

- Achenbach, T.M., & Edelbrock, C.S. (1979). The child behavior profile: II. Boys aged 12-16 and girls aged 6-11 and 12-16. Journal of Consulting and Clinical Psychology, 47(2), 223-233.
- Achenbach, T.M., & Edelbrock, C.S. (1981). Behavioral problems and competencies reported by parents of normal and disturbed children ages 4 through 16. Monographs of the Society for Research in Child Development, 46, (Serial no. 188).
- Achenbach, T.M., & Edelbrock, C.S. (1983). Manual for the Child Behavior Checklist and Profile. United States of America: Queen City Printers Inc.
- Arnold, J.E., Levine, A.G., & Patterson, G.R. (1975). Changes in sibling behavior following family intervention. Journal of Consulting and Clinical Psychology, 43(5), 683-688.
- Bandura, A. & Walters, R.H. (1959). Adolescent Agression. New York: Ronald Press.
- Bates, J.E. (1975). Effects of a child's imitation versus nomination on adult's verbal and nonverbal positivity. Journal of Personality and Social Psychology, 31, 840-851.
- Bates, J.E. (1976). Effects of children's nonverbal behavior on adults. Child Development, 47, 1079-1088.
- Bateson, G. (1972). Steps to an ecology of mind. New York: Ballantine.
- Bateson, G. (1979). Mind and nature. New York: Dutton.
- Bateson, G., Jackson, D., Haley, J., & Weakland, J. (1956). Toward a theory of schizophrenia. Behavioral Science, 1, 241-264.

- Baumrind, D. (1973). The development of instrumental competence through socialization. In A. Pick (Ed.), Minnesota symposia on child psychology (Vol.7): Minneapolis: University of Minnesota Press.
- Becker, W.C. (1960). The relationship of factors in parental ratings of self and each other to the behaviour of kindergarten children as rated by mothers, fathers, and teachers. Journal of Consulting Psychology, 24, 507-527.
- Becker, W.C. (1964). Consequences of different kinds of parental discipline. In M.L. Hoffman & L.W. Hoffman (Eds.), Review of child development research vol. 1. New York: Russel Sage Foundation.
- Bell, R.Q. (1979). Parent, child, and reciprocal influences. American Psychologist; 34, 821-826.
- Bell, R.Q., & Harper, L.V. (1977). Child effects on adults. Hillsdale, N.J.: Erlbaum.
- Block, J.H. (1979). Another look at sex differentiation in the socialization behavior of mothers and fathers. In J. Sherman & F.L. Denmark (Eds.), Psychology of women: Future directions of research. New York: Psychological Dimensions.
- Bower, E.M., Shellhamer, T.A., & Daily, J.M. (1960). School characteristics of male adolescents who later became schizophrenics. American Journal of Orthopsychiatry, 30, 712-729.
- Bowman, K.M. (1934). A study of prepsychotic personality in certain psychoses. American Journal of Orthopsychiatry, 4, 712-729.
- Brown, G.W., Birley, J.L.T., & Wing, J.K. (1972). Influence of family life on the course of schizophrenic disorders: A replication. British Journal of Psychiatry, 121, 241-258.

- Brown, G.W., & Rutter, M. (1966). The measurement of family activities and relationships: A methodological study. Human Relations, 19, 241-263.
- Bugental, D.B., Caporeal, L., Shennun, W.A. (1980). Experimentally produced child uncontrollability: Effects on the potency of adult communication patterns. Child Development, 51, 520-528.
- Bugental, D.B., Henker, B., & Whalen, C.K. (1976). Attributional antecedents of verbal and vocal assertiveness. Journal of Personality and Social Psychology, 34, 405-411.
- Bugental, D.B., & Shennun, W.A. (1984). "Difficult" children as elicitors and targets of adult communication patterns: An attributional/behavioral transactional analysis. Monographs of The Society For Research In Child Development, 49 (1, Serial no.205).
- Bugental, D.E. (1974). Interpretations of naturally occurring discrepancies between words and intonation: Modes of inconsistency resolution. Journal of Personality and Social Psychology, 30, 125-133.
- Bugental, D.E., Love, L.R., & Kaswan, J.W. (1972). Videotaped family interaction: Differences reflecting presence and type of child disturbance. Journal of Abnormal Psychology, 79, 285-290.
- Bugental, D.E., Love, L.R., Kaswan, J.W., & April, C. (1971). Verbal, nonverbal conflict in parental messages to normal and disturbed children. Journal of Abnormal Psychology, 77, 6-10.
- Cantor, N.L., & Gelfand, D.M. (1977). Effects of responsiveness and sex of children on adult behavior. Child Development, 48, 232-238.

- Chapman, M. (1979). Listening to reason: children's attentiveness and parental discipline. Merrill-Palmer Quarterly, 25, 251-263.
- Christensen, A., Phillips, S., Glasgow, R.E., & Johnson, S.M. (1983). Parental characteristics and interactional dysfunction in families with child behavior problems: A preliminary investigation. Journal of Abnormal Child Psychology, 11(1), 153-166.
- Cochran, W.G. (1954). Some methods for strengthening the common χ^2 tests. Biometrics, 10, 417-441.
- Cole, J.D., & Kupersmidt, J.B. (1983). A behavioral analysis of emerging social status in boys' groups. Child Development, 54, 1400-1416.
- Cunningham, C.E., & Barkley, R.A. (1979). A comparison of the interactions of hyperactive and normal children with their mothers in free play and structure task. Child Development, 50, 217-224.
- Davitz, J.R. (1964). The communication of emotion meaning. New York: McGraw-Hill.
- Derogatis, L.R. (1977). The SCL-90 Manual I: Scoring, administration and procedures for the SCL-90. Baltimore, John Hopkins University School of Medicine, Clinical Psychometrics Unit.
- Derogatis, L.R., Lipman, R.S., & Covi, L. (1982). The SCL-90: An outpatient rating scale - preliminary report. Psychopharmacology Bulletin, 92, 310-330.
- Derogatis, L.R., Rickels, K., & Rock, A.F. (1976). The SCL-90 and the MMPI: A step in the validation of a new self-report scale. British Journal of Psychiatry, 128, 280-289.

- Doane, J.A., Goldstein, M.J. (1981). Familial characteristics of adolescents vulnerable to subsequent antisocial disorders. Paper presented at the Society for Life History Research conference, Monterey, California, November 22-25.
- Dodge, K.A. (1983). Behavioral antecedents of peer social status. Child Development, 54, 1386-1399.
- Dodge, K.A., Coie, J.D., & Brakke, P. (1982). Behavior patterns of socially rejected and neglected preadolescents: The roles of social approach and aggression. Journal of Abnormal Child Psychology, 10, 389-410.
- Emery, R.E., Birkoff, J.A., Houts, A.C., & Carr, E.G. (1983). Children as independent variables: some clinical implications of child-effects. Behavior Therapy, 14, 398-412.
- Forehand, R., King, H.E., Peed, S., & Yoder, P. (1975). Mother-child interactions: Comparisons of a non-compliant clinic group and a non-clinic group. Behavior Research and Therapy, 13, 79-84.
- Forehand, R., Wells, K.C., & Griest, D.L. (1980). An examination of the social validity of a parent training program. Behavior Therapy, 11, 488-502.
- Freeman, H.E., & Simmons, O.G. (1958). Mental patients in the community: Family settings and performance levels. American Sociological Review, 23, 147-154.
- Friedlander, S., Weiss, D.S., & Traylor, J. (1986). Assessing the influence of maternal depression on the validity of the Child Behavior Checklist. Journal of Abnormal Child Psychology, 14, 123-133.

Goldstein, M.J. (1985). Family factors that antedate the onset of schizophrenia and related disorders: the results of a fifteen year prospective longitudinal study. Acta Psychiatrica Scandinavica, 71 (suppl: 319), 7-18.

Goldstein, M.J., Rodnick, E.H. (1975). The family's contribution to the etiology of schizophrenia: Current status. Schizophrenia Bulletin, 14, 43-63.

Gottman, J.M. (1977). Toward a definition of social isolation in children. Child Development, 48, 513-517.

Gottman, J.M., Gonso, J., & Rasmussen, B. (1975). Social interaction, social competence and friendship in children. Child Development, 46, 709-718.

Gottman, J.M., & Parkhurst, J.T. (1977, March). Developing may not always be improving: A developmental study of children's best friendships. Paper presented at the Biennial Meeting of the Society for Research in Child Development, New Orleans, Louisiana.

Griest, D.L., Forehand, R., Wells, K.C., & McMahon, R.G. (1980). An examination of differences between nonclinic and behavior-problem clinic-referred children and their mothers. Journal of Abnormal Psychology, 89(3), 497-500.

Griest, D., Wells, K.C., & Forehand, R. (1979). An examination of predictors of maternal perceptions of maladjustment in clinic-referred children. Journal of Abnormal Psychology, 88(3), 277-281.

Grubb, T., & Watt, N.F. (1979, April). Longitudinal approaches to promoting social adjustment through public school programs. Paper presented at the meeting of the Society for Research in Child Development, San Francisco.

Hartup, W.W., Glazer, J.A., & Charlesworth, R. (1967). Peer reinforcement and sociometric status. Child Development, 38, 1017-1024.

Hewitt, L.E., & Jenkins, R.L. (1946). Fundamental patterns of maladjustment: The dynamics of their origin. Illinois: D.H. Green.

Hoffman, L. (1981). Foundations of family therapy. New York: Basic.

Hooley, J.M. (1985). Expressed emotion: A review of the critical literature. Clinical Psychology Review, 5, 119-139.

Hymel, S., & Asher, S.R. (1977, march). Assessment and training of isolated children's social skills. Paper presented at the Biennial Meeting of the Society for Research in Child Development, New Orleans, Louisiana.

Hymel, S., & Rubin, K. (in press). Children with peer relationships and social skills problems: Conceptual, methodological and developmental issues. In G.J. Whitehurst (Ed), Annals of Child Development (Vol. 2). Greenwich, Conn.: JAI Press.

Jacob, T. (1975). Family interaction in disturbed and normal families : A methodological and substantive review. Psychological Bulletin, 82, 33-65.

Kagan, J. (1984). The Nature of The Child. New York: Basic Books.

- Kazdan, A.E., Esveltd-Dawson, K., Unis, A.S., & Rancurello, M.D. (1983). Child and parent evaluations of depression and aggression in psychiatric inpatient children. Journal of Abnormal Child Psychology, 11, 401-413.
- Kazdan, A.E., French, N.H., & Unis, A.S. (1983). Child, mother, and father evaluations of depression in psychiatric inpatient children. Journal of Abnormal Child Psychology, 11, 167-180.
- Keller, B.B., & Bell, R.Q. (1979). Child effects on adults' method of eliciting altruistic behavior. Child Development, 50, 1004-1009.
- Kuipers, L. (1979). Expressed emotion : A review. British Journal of Social and Clinical Psychology, 18, 237-243.
- Lasko, J.K. (1954). Parent behavior towards first and second children. Genetic Psychology Monographs, 49, 97-137.
- Ledingham, J.E. (1981). Developmental patterns of aggressive and withdrawn behavior in childhood : A possible method for identifying preschizophrenics. Journal of Abnormal Child Psychology, 9(1), 1-22.
- Leff, J.P., & Vaughn, C. (1981). The role of maintenance therapy and relatives' expressed emotion in relapse of schizophrenia: A two-year follow-up. British Journal of Psychiatry, 139, 102-104.
- Leff, J.P., & Vaughn, C. (1985). Expressed Emotion in families: Its significance for mental illness. New York: The Guilford Press.
- Lidz, T., Cornelison, A., Fleck, S., & Terry, D. (1957). The intrafamilial environment of schizophrenic patients: II. Marital schism and marital skew. American Journal of Psychiatry, 114, 241-248.

- Lien, J.H. (1980). Family studies of schizophrenia: An update and commentary. Schizophrenia Bulletin, 6, 429-455.
- Lobitz, G.K., & Johnson, S.M. (1975). Normal versus deviant children: A multimethod comparison. Journal of Abnormal Child Psychology, 3, 353-374.
- Locke, H.J., & Wallace, K.M. (1959, august). Short marital adjustment and predictive tests: Their reliability and validity. Marriage and Family living, pp. 251-255.
- Maccoby, E.E., & Jacklin, C.N. (1974). The psychology of sex differences. Stanford, Calif.: Stanford University Press.
- Marsden, G. (1965). Content-analysis studies of therapeutic interviews: 1954-1964. Psychological Bulletin, 63, 298-321.
- Mash, E.J., & Johnston, C. (1982). A comparison of mother-child interactions of younger and older hyperactive and normal children. Child Development, 53, 1371-1381.
- Matthews, K.A. (1977). Caregiver-child characteristics in the Type A coronary-prone behavior pattern. Child Development, 48, 1852-1856.
- McCord, W., McCord, J.S., & Howard, A. (1961). Familial correlates of aggression in nondelinquent male children. Journal of Abnormal Social Psychology, 62, 79-93.
- Mednick, S., & Schulsinger, F. (1970). Factors related to breakdown in children at high risk for schizophrenia. In M. Roffa & D. Ricks (Eds.), Life history research in psychopathology Vol. 1. Minneapolis: University of Minnesota Press.

- Mehrabian, A., & Wiener, M. (1967). Decoding of inconsistent communications. Journal of Personality and Social Psychology, 6, 109-114.
- Miklowitz, D.J., Goldstein, M.J., Falloon, I.R.H., & Doane, J.A. (1984). Interactional correlates of expressed emotion in the families of schizophrenics. British Journal of Psychiatry, 144, 482-487.
- Minuchin, P. (1985). Families and individual development: Provocation from the field of family therapy. Child Development, 56, 289-302.
- Minuchin, S. (1974). Families and family therapy. Cambridge, MA: Harvard University Press.
- Morris, D.P., Soroker, E., & Burrus, G. (1954). Follow up studies of shy, withdrawn children: Evaluation of later adjustment. American Journal of Orthopsychiatry, 24, 743-755.
- Morris, H.H., Escoll, P.J., & Wexler, R. (1956). Aggressive behavior disorders in childhood: A follow up study. American Journal of Psychiatry, 112, 991-997.
- Moskowitz, D.S., Schwartzman, A.E., & Ledingham, J.E. (1985). Stability and change in aggression and withdrawal in middle childhood and early adolescence. Journal of Abnormal Psychology, 94(1), 30-41.
- Mulhern, R.K., & Passman, R.H. (1979). The child's behavioral pattern as a determinant of maternal punitiveness. Child Development, 50, 815-820.
- O'Malley, J. (1977). Research perspective on social competence. Merrill Palmer Quaterly, 23, 29-44.
- Parke, R.D., & Sawin, D.B. (1977). The child role in sparing the rod. Unpublished manuscript, University of Illinois.

- Parsons, T., & Bales, R.F. (1955). Family, Socialization and Interaction Process. Glencoe, Illinois: Free Press.
- Patterson, G.R. (1976). The aggressive child: Victim and architect of a coercive system. In E.J. Mash, L.A. Hamerlynck & L.C. Handy (Eds.), Behavior modification and families vol. 1: Theory and research. New York: Brunner/Mazel.
- Patterson, G.R. (1982). Coercive family process: A social learning approach. Vol. 3. Eugene, Oregon: Castalia.
- Peterson, D.R., Becker, W.C., Shoemaker, D.J., Luria, Z., & Hellmer, L.A. (1961). Child behaviour problems and parental attitudes. Child Development, 32, 151-162.
- Pekarik, E.G., Prinz, R.J., Liebert, D.E., Weintraub, S., & Neale, J. M. (1976). The pupil evaluation inventory. A sociometric technique for assessing children's social behavior. Journal of Abnormal Child Psychology, 4, 83-97.
- Quay, H.C. (1979). Classification. In H.C. Quay & J.S. Werry (Eds.), Psychopathological disorders of childhood (pp.1-42). New York: Wiley.
- Raush, H.L. (1965). Interaction sequences. Journal of Personality and Social Psychology, 2, 487-495.
- Reich, W., Herjanic, B., Welner, Z., & Ghandy, P.R. (1982). Development of a structured psychiatric interview for children: Agreement on diagnosis comparing child and parent interviews. Journal of Abnormal Child Psychology, 10, 325-336.

- Rickard, K.M., Forehand, R., Wells, K.C., Griest, D.L., & McMahon, R.G. (1981). A comparison of mothers of clinic-referred deviant, clinic-referred nondeviant, and nonclinical children. Behaviour Research and Therapy, 19, 201-205.
- Robins, L. (1972). Follow up studies of behavior disorders in children. In H.C. Quay & J.S. Werry (Eds.), Psychopathological Disorders of Childhood. New York: Wiley.
- Roff, M., Sells, S.B., & Golden, M.M. (1972). Social adjustment and personality development in children. Minneapolis: University of Minnesota Press.
- Ross, A.O. (1974). Psychological disorders of children: A behavioral approach to theory, research, and therapy. New York: McGraw-Hill.
- Rothbart, M.K. (1971). Birth order and mother-child interaction in an achievement situation. Journal of Personality and Social Psychology, 17, 113-120.
- Rowe, D.C., & Plomin, R. (1981). The importance of non-shared environmental influence in behavioral development. Developmental Psychology, 17, 517-531.
- Rutter, M., & Brown, G.W. (1966). The reliability and validity of measures of family life and relationships in families containing a psychiatric patient. Social Psychiatry, 1(1), 38-53.
- Scarr, S., Webber, P.L., Weinberg, R.A., & Wittig, M.A. (1981). Personality resemblance among adolescents and their parents in biologically related and adoptive families. Journal of Personality and Social Psychology, 40, 885-898.

- Schulman, R.E., Shoemaker, D.J., & Moelis, I. (1962). Laboratory measurement of parental behavior. Journal of Consulting Psychology, 26(2), 109-114.
- Schwartzman, A.E., Ledingham, J.E., & Serbin, L.A. (1985). Identification of children at risk for adult schizophrenia - a longitudinal study. International Review of Applied Psychology, 34(3), 363-380.
- Sears, R.R., Whiting, J.W.N., Nowlis, U., & Sears, P.S. (1953). Some child-rearing antecedents of aggression and dependence in children. Genetic Psychology Monographs, 47, 135-236.
- Singleton, L.C., & Asher, S.R. (1977). Peer preferences and social interaction among third-grade children in an integrated school district. Journal of Educational Psychology, 69, 330-336.
- Snow, M.E., Jacklin, C.N., & Maccoby, E.E. (1981). Birth order differences in peer sociability at 33 months. Child Development, 52, 589-595.
- Starkweather, J.A. (1964). Variations in vocal behavior. In D. Mck. Riach, & E.A. Weinstein (Eds.); Disorders of communication (pp. 424-449). Baltimore, Md.: Williams & Wilkins.
- Sturgeon, D., Kuipers, L., Berkowitz, F., Turpin, G., & Leff, J. (1981). Psychophysiological responses of schizophrenic patients to high and low expressed emotion relatives. British Journal of Psychiatry, 138, 40-45.
- Sullivan, H.S. (1962). Schizophrenia as a human process. New York: W.W. Norton & Company Inc.

- Sundberg, N., Snowden, L., & Reynold, W. (1978). Toward assessment of personal competence and incompetence in life situations. Annual Review of Psychology, 29, 199-222.
- Tarrier, N., Vaughn, C., Lader, M.H., & Leff, J. P. (1979). Bodily reactions to people and events in schizophrenics. Archives of General Psychiatry, 36, 311-315.
- Teyber, E.C., Messe, L.A., & Stollak, G.E. (1977). Adult response to child communications. Child Development, 48, 1577-1582.
- Thomas, A., Chess, S., & Birch, H.G. (1968). Temperament and behavior disorders in children. New York: University Press.
- Turner, R.J., Frankel, B.G., & Levin, D.M. (1983). Social support: Conceptualization, measurement, and implications for mental health. Research in Community and Mental Health, 3, 67-111.
- Valone, K., Goldstein, M.J., & Norton, J. (1984). Parental expressed emotion and psychological reactivity in an adolescent sample at risk for schizophrenia spectrum disorders. Journal of Abnormal Psychology, 93(4), 448-457.
- Valone, K., Norton, J.P., Goldstein, M.J., & Doane, J.A. (1983). Parental expressed emotion and affective style in an adolescent sample at risk for schizophrenia spectrum disorder. Journal of Abnormal Psychology, 92, 399-407.
- Vaughn, C.E. (1977). Interaction characteristics in families of schizophrenic patients. In H. Katschnig (Ed.), Die andere seite der schizophrenie. Vienna: Urban & Schwarzenberg.

- Vaughn, C.E., & Leff, J.P. (1976a). The influence of family and social factors on the course of psychiatric illness : A comparison of schizophrenic and depressed neurotic patients. British Journal of Psychiatry, 129, 125-137.
- Vaughn, C.E., & Leff, J.P. (1976b). The measurement of expressed emotion in the families of psychiatric patients. British Journal of Social and Clinical Psychology, 15(Part 2), 157-165.
- Vaughn, C.E., & Leff, J.P. (1981). Patterns of emotional response in relatives of schizophrenic patients. Schizophrenia Bulletin, 7, 43-44.
- Vaughn, C.E., Snyder, K.S., Freeman, W., Jones, S., Falloon, I.R.H., & Lieberman, R.P. (1984). Family factors in schizophrenic relapse. Archives of General Psychiatry, 41, 1169-1177.
- Vosk, B., Forehand, R., Parker, J.B., & Rickard, K. (1982). A multimethod comparison of popular and unpopular children. Developmental Psychology, 18, 571-575.
- Walters, J., & Stinnett, N. (1971). Parent-child relationships: A decade review of research. Journal of Marriage and the Family, 33, 70-111.
- Watt, N.F., Stolorow, R.D., Lubensky, A.W., & McClelland, D.C. (1970). School adjustment and behavior of children hospitalized for schizophrenia as adults. American Journal of Orthopsychiatry, 40, 637-657.
- Watzlawick, P., Jackson, D., & Beaven, J. (1967). Pragmatics of human communication. New York: Norton.

Weinberg, S.L., & Richardson, M.S. (1981). Dimensions of stress in early parenting. Journal of Consulting and Clinical Psychology, 49, 686-693.

Wittman, M.P., & Steinberg, D.L. (1944). A study of prodromal factors in mental illness with special reference to schizophrenia. American Journal of Psychiatry, 100, 811-816.

Wynne, L., Ryckoff, I., Day, J., & Hirsch, S. (1958). Pseudomutuality in the family relations of schizophrenics. Psychiatry, 21, 205-220.

Wynne, L.C., & Gift, T. (1978). Brief speech samples as an analogue of expressed emotion. Paper presented at the National Mental Health Workshop on Methods for the Study of Intrafamilial Stress in Schizophrenia, Washington, D.C.

Appendix A
Pupil Evaluation Inventory

Votre Nom: _____

Votre Numero: _____

1.- Ceux qui sont plus grands que les autres:

2.- Ceux qui aident les autres:

3.- Ceux qui ne sont pas capables de rester assis tranquilles:

4.- Ceux qui essaient de mettre les autres dans le trouble:

5.- Ceux qui sont trop timides pour se faire des amis facilement:

6.- Ceux qui se sentent trop facilement blessés:

7.- Ceux qui prennent des airs supérieurs et qui pensent qu'ils valent mieux que tout le monde:

8.- Ceux qui font les clowns et qui font rire les autres:

9.- Ceux qui commencent la chicane à propos de rien:

10.- Ceux qui ne semblent jamais s'amuser:

11.- Ceux qui sont bouleversés quand ils ont à répondre aux questions en classe:

12.-Ceux qui disent aux autres enfants quoi faire:

13.-Ceux qui sont d'habitude les derniers choisis

pour participer a des activites de groupe:

14.-Ceux que tout le monde aime:

15.-Ceux qui s'empetrént tout le temps et se mettent en difficultes:

16.-Ceux qui rient des gens:

17.-Ceux qui ont tres peu d'amis:

18.-Ceux qui font des choses bizarres:

19.-Ceux qui sont vos meilleurs amis:

20.-Ceux qui ennuient les gens qui essaient de travailler:

21.-Ceux qui se mettent en colere quand ca ne marche pas
comme ils veulént:

22.-Ceux qui ne portent pas attention au professeur:

23.-Ceux qui sont impolis avec le professeur:

24.-Ceux qui sont malheureux ou tristes:

25.-Ceux qui sont particulièrement gentils:

26.-Ceux qui se comportent comme des bébés:

27.-Ceux qui sont méchants et cruels avec les autres enfants:

28.-Ceux qui souvent ne veulent pas jouer:

29.-Ceux qui vous regardent de travers:

30.-Ceux qui veulent faire les fins devant la classe:

31.-Ceux qui disent qu'ils peuvent battre tout le monde:

32.-Ceux que l'on ne remarque pas beaucoup:

33.-Ceux qui exagèrent et racontent des histoires:

34.-Ceux qui se plaignent toujours et qui ne sont jamais contents:

35.-Ceux qui semblent toujours comprendre ce qui se passe:

Appendix B

Child Behavior Checklist
Social Competence Scales

Inventaire Personnel

I.D. _____ Sexe: _____ Niveau scolaire actuel: _____

Occupation du pere: _____ Date (aujourd'hui): _____

Occupation de la mere: _____ Date de naissance: _____

Habites-tu chez tes parents? _____ oui _____ non (decrire): _____

I.- Indique, s'il te plait les sports auxquels tu preferes participer:
ex. la nage, le patinage, la bicyclette, etc.

_____ aucun

a. _____

b. _____

c. _____

Compare(e) a d'autres personnes de ton age, a peu pres combien de temps y passes-tu?

	Moins que la moyenne	Comme la moyenne	Plus que la moyenne
a. _____	_____	_____	_____
b. _____	_____	_____	_____
c. _____	_____	_____	_____

Compare(e) a d'autres personnes de ton age, avec quelle habilete pratiques-tu chacun de ces sports:

	Moins que la moyenne	Comme la moyenne	Mieux que la moyenne
a. _____	_____	_____	_____
b. _____	_____	_____	_____
c. _____	_____	_____	_____

II.- Indique tes passe-temps, activites, et jeux favoris, autres que les sports: ex: collections, livres, piano, etc.

_____ aucun

a. _____

b. _____

c. _____

Compare(e) a d'autres personnes de ton age, a peu pres combien de temps y passes-tu?

	Moins que la moyenne	Comme la moyenne	Plus que la moyenne
a. _____	_____	_____	_____
b. _____	_____	_____	_____
c. _____	_____	_____	_____

Compare(e) a d'autres personnes de ton age, comment te classes-tu dans chacune de ces activites?

	Pire que la moyenne	Comme la moyenne	Mieux que la moyenne
a. _____	_____	_____	_____
b. _____	_____	_____	_____
c. _____	_____	_____	_____

III.- Enumere les organisations, clubs, equipes ou groupes auxquels tu appartiens:

_____ aucun

a. _____

b. _____

c. _____

Compare(e) a d'autres personnes de ton age, jusqu'a quel point participes-tu a ces groupes:

	Moins activement	Comme la moyenne	Plus activement
a. _____	_____	_____	_____
b. _____	_____	_____	_____
c. _____	_____	_____	_____

IV.- Indique les emplois ou taches domestiques que tu fais:

ex. livraison de journaux, garde d'enfants, faire le lit, etc.

_____ aucun

a. _____

b. _____

c. _____

Compare(e) a d'autres personnes de ton age, comment executes-tu ces taches?

	Pire que la moyenne	Comme la moyenne	Mieux que la moyenne
a. _____	_____	_____	_____
b. _____	_____	_____	_____
c. _____	_____	_____	_____

V.- (1) A peu pres combien de bons amis (et de bonnes amies) as-tu?

_____ aucun _____ 1 _____ 2 ou 3 _____ 4 ou plus.

(2) A peu pres combien de fois par semaine faites vous des choses ensemble?

_____ moins de 1 _____ 1 ou 2 _____ 3 ou plus.

VI.- Compare(e) a d'autres personnes de ton age, comment:

	Pire	Comme la moyenne	Mieux
a. t'entends-tu avec tes freres et soeurs?	_____	_____	_____
b. t'entends-tu avec les autres en general?	_____	_____	_____
c. te comportes-tu avec tes parents?	_____	_____	_____
d. t'occupes-tu et travailles-tu seul(e)?	_____	_____	_____

VII.- (1) Rendement scolaire actuel:

_____ ne vais pas a l'ecole

	Echec	En dessous de la moyenne	comme la moyenne	au dessus de la moyenne
a. Francais	_____	_____	_____	_____
b. Maths	_____	_____	_____	_____
autres matieres:				
c. _____	_____	_____	_____	_____
d. _____	_____	_____	_____	_____
e. _____	_____	_____	_____	_____
f. _____	_____	_____	_____	_____
g. _____	_____	_____	_____	_____

(2) As-tu deja ete dans une classe speciale?

_____ non _____ oui, quel genre? _____

(3) Est-ce que tu as deja double une annee?

_____ non _____ oui, quelle annee et pour quelle raison? _____

(4) Pourrais-tu décrire tout problème académique ou autre que tu as à l'école?

 aucun

Utilise le reste de l'espace pour ajouter autre chose qui peut décrire tes sentiments, comportements, et intérêts.

As-tu répondu à toutes les questions?

Appendix C
Expressed Emotion Scales

Directives aux intervieweurs

Duree d'enregistrement: 5 minutes

Après avoir eu la permission d'enregistrer, et après avoir demandé les questions sur les variables démographiques, l'intervieweur (étant seul avec le parent) donne les instructions suivantes:

"Maintenant, j'aimerais que vous me parliez de votre enfant, (_____) pendant cinq minutes. Je ne vais pas vous interrompre ni par des questions, ni par des commentaires et je vais enregistrer ce que vous allez me dire. J'aimerais que vous me disiez quel genre de personne votre enfant (_____) est, et comment vous vous entendez ensemble."

Regles generales:

1.- Si le parent a de la difficulté à commencer à parler, ou si le parent demande des explications ou des éclaircissements sur ce qu'il/elle doit dire, l'intervieweur doit répéter les principaux points des instructions et/ou dire:

"Moi qui suis une personne qui ne connaît pas votre enfant, décrivez-le/la moi d'une façon générale et dites-moi comment est votre relation vous et lui/elle."

2.- L'intervieweur est autorise a intervenir:

- a) seulement apres la premiere fois que le parent arrete de parler pour une periode de 30 secondes.
- b) si le parent parle beaucoup plus d'un point que d'un autre.
- c) pour repeter les instructions, si c'est necessaire.

3.- Ne pas intervenir par des questions ou commentaires apres chaque petit moment d'arret du parent.

4.- L'intervieweur doit arreter l'enregistrement si:

- a) le parent se sent mal a l'aise en parlant de son enfant et/ou de leur relation.
- b) le parent arrete de parler une deuxieme fois pour 30 secondes.
- c) le parent parle plus que cinq minutes

Expressed Emotion Scales

Scoring Procedure

I Negative Expressed Emotion (NEE)

II Positive Expressed Emotion (PEE)

These scales involve the recognition of particular comments occurring at any point in the speech sample.

A comment counts only if it relates to "how the person is feeling now".

It is permissible for a comment to be rated if it is directed toward several persons provided that it is clear that these include the person concerned in the rating.

Scoring

Each scale is independent. A score of 1 is given if a comment occurs in the speech sample which corresponds to the criteria defined for the scale. A score of 0 is given if no such comment occurs.

I Negative Expressed Emotion (NEE)

A rating of 1 on this scale involves the recognition of an unfavourable comment (criticism) upon the behaviour or personality of the person to whom it refers.

Criticisms are principally evident in the pitch, speed and inflection imparted to the statement by the person making it; that is by the vocal aspects of speech, but they may also be evident in the content of the comment alone. These two aspects are discussed in the following sections.

1) Critical content

A- Where there is a clear and unambiguous statement that the respondent dislikes, disapproves of, or resents a behaviour or characteristic. In such cases, the respondent must use phrases like "I didn't like it", "It annoys me" or "I resented it". Any less strongly worded statements such as "I'd prefer it if he wasn't like that" can only be called critical if, in addition, it is critical in tone.

A respondent can opt out a critical comment based on content alone by implying that his or her reactions are due to imperfections in himself e.g. "It really annoys me when she does that, but that's probably because I'm rather an intolerant person".

B- Where there is a rejecting remark. These usually involve a pejorative comment about the person as a whole or a statement of frank dislike and should always be rated as critical e.g. "She is stupid in everything she does", "The farther away I am from him the better".

It is impossible to opt out of rejecting remarks. It is very rare for them to be made without critical tone.

* It is important to note that mere recognition or description of unfavourable characteristics or behaviour is never in itself sufficient to define a statement as critical. Thus, any statement if said in a matter of fact way or with understanding would not be rated as critical. Of course, if clearly critical tone is used it would be rated.

2) Vocal aspect

features: 1- change in speed (increase or decrease)

2- change in pitch (increase or decrease)

3- emphasis on certain words

4- repetition

The way in which individuals express themselves is highly personal so that no particular vocal characteristics can be held to define statements made by different persons as invariably critical. Respondents who freely express feelings or attitudes present no difficulty in most cases, but the more reticent, unemotional or defensive respondents often display relatively little vocal variation when describing intimate and prosaic aspects of their lives.

Whenever a remark is considered to be critical on vocal criteria, it should be rated regardless of content. Decisions will, of course, be easier to make where the content and the vocal aspects agree. The more positive the content of the remark, the more clear-cut the contrary vocal evidence will need to be. For example, the statement "He's been wonderful" would need very heavy sarcastic inflection before one could be sure it was critical. However, where there are indubitably critical vocal features there should be no hesitation in rating a criticism.

If the rating is based on vocal aspect only, the presence of at least 2 or 3 out of the 4 types of evidence will ensure reliability. e.g. If there is change in speed, emphasis and repetition you could be sure of your rating even if the tone is flat with no change in pitch at all.

II Positive Expressed Emotion (PEE)

A rating of 1 on this scale involves the recognition of a favourable comment (positive remark) upon the behaviour or personality of the person to whom it refers.

A positive remark is a statement which expresses praise, approval or appreciation of the behaviour or personality of the person. A remark

is positive :

/ Where there is a clear and unambiguous statement that the respondent likes, approves of, or clearly appreciates a behaviour or characteristic. In such cases, the respondent must use phrases like "I like it", "I appreciate it"! Any less strongly worded statements can only be rated on this scale if in addition approval is clearly signified by tone of voice.

Where there is an accepting remark. These usually involve a positive comment about the person as a whole e.g. "She is marvellous", "He is perfect".

✓
Appendix D

Provisions of Social Relations

Sexe: _____ I.D.: _____

PSR /

Maintenant, nous aimerions en savoir plus sur vos relations avec d'autres personnes. Pour chacune des phrases suivantes, veuillez nous indiquer la réponse qui s'applique le plus en suivant l'échelle ci-dessous:

- 1.- Ressemble énormément à mon expérience.
- 2.- Ressemble beaucoup à mon expérience.
- 3.- Ressemble à peu près à mon expérience.
- 4.- Ne ressemble pas à mon expérience.
- 5.- Ne ressemble pas du tout à mon expérience.

- 1 _____ Peu importe ce qui arrive, je sais que ma famille sera toujours là si j'ai besoin d'elle.
- 2 _____ Quelquefois, je ne suis pas sûr(e) si je peux compter entièrement sur ma famille.
- 3 _____ Ma famille ne laisse savoir qu'elle pense que je suis une personne de valeur.
- 4 _____ Les gens dans ma famille ont confiance en moi.
- 5 _____ Les gens dans ma famille m'aident à trouver des solutions à mes problèmes.
- 6 _____ Je sais que ma famille me soutiendra toujours.
- 7 _____ Quand je suis avec mes ami(e)s, je sais que je peux me détendre complètement et être moi-même.
- 8 _____ J'ai la même approche face à la vie que plusieurs de mes ami(e)s.

- 9 _____ Les personnes qui me connaissent ont confiance en moi et me respectent.
- 10 _____ Quand je veux sortir pour faire quelque chose, je sais que plusieurs de mes amis aimeraient faire ces choses avec moi.
- 11 _____ J'ai au moins un(e) ami(e) a qui je peux tout dire.
- 12 _____ Je me sens tres proche de quelques-un(e)s de mes ami(e)s.
- 13 _____ Les gens qui me connaissent pensent que je suis bon dans ce que je fais.
- 14 _____ Mes ami(e)s prendraient de leur temps pour discuter de mes problemes si jamais je le voulais.
- 15 _____ Meme quand je suis avec mes ami(e)s, je me sens seul(e).

Appendix E

Symptom Check List - '90

Ci-dessous, se trouve une liste de problèmes et de plaintes que les gens formulent de temps à autres. Veuillez, s'il vous plait, lire chacune de ces plaintes attentivement. Dès que vous l'aurez fait, indiquez par le numéro approprié la réponse qui décrit le mieux comment ce problème vous a dérangé(e) ou affligé(e) durant les sept (7) derniers jours, aujourd'hui inclus.

Echelle: 0 pas du tout

1 un peu

2 modérément

3 passablement

4 énormément

Exemple: Comment avez-vous été dérangé(e) par:

_____ 1. des maux de dos.

Comment avez-vous été dérangé(e) par:

_____ 1. des maux de tête

_____ 2. la nervosité ou tremblement intérieur

_____ 3. des pensées désagréables répétées qui ne vous lâchaient pas

_____ 4. des évanouissements ou des étourdissements

_____ 5. la perte de l'intérêt ou du plaisir sexuel

_____ 6. le fait d'être porté à critiquer les autres

_____ 7. l'idée que quelqu'un d'autre contrôle vos pensées

_____ 8. le sentiment que les autres surtout sont à blâmer pour vos problèmes

- ___ 9. le fait d'avoir de la difficulté a vous rappeler quelque chose
- ___ 10. le fait d'être inquiet(e) a propos de la malproprete ou de la
negligence
- ___ 11. être facilement ennuyé(e) ou irrité(e)
- ___ 12. des douleurs au coeur ou a la poitrine
- ___ 13. la peur des espaces ouverts ou d'être sur la rue
- ___ 14. le sentiment de manquer d'énergie ou d'être au ralenti
- ___ 15. des pensées d'en terminer avec la vie
- ___ 16. le fait d'entendre des voix que les autres n'entendent pas
- ___ 17. des tremblements
- ___ 18. le sentiment qu'on ne peut pas se fier a la plupart des gens
- ___ 19. le peu d'appetit
- ___ 20. le fait de pleurer facilement
- ___ 21. le fait d'être gêné(e) ou mal a l'aise avec des personnes du
sexe oppose
- ___ 22. le sentiment d'être pris(e) au piège ou immobilisé(e)
- ___ 23. avoir soudainement pris peur sans raison
- ___ 24. des excès de colère que vous ne pouviez pas contrôler
- ___ 25. être effrayé(e) de sortir seul(e) de la maison
- ___ 26. vous blâmer vous-même pour des choses
- ___ 27. des douleurs dans le bas du dos
- ___ 28. le sentiment de ne plus avancer dans ce que vous faites
- ___ 29. le sentiment d'être seul(e)
- ___ 30. le fait d'avoir le cafard
- ___ 31. le fait de vous inquiéter trop a propos de rien
- ___ 32. n'être pas intéressé(e) a rien
- ___ 33. vous être senti(e) craintif(ve)

- ___ 34. le fait que vos sentiments sont trop facilement blessés
- ___ 35. les autres gens sont au courant de vos pensées intimes
- ___ 36. le sentiment que les autres ne vous comprennent pas ou sont antipathiques
- ___ 37. le sentiment que les gens ne sont pas amicaux ou ne vous aiment pas
- ___ 38. d'avoir à faire les choses très lentement pour s'assurer que tout est correct.
- ___ 39. des palpitations ou des battements rapides du cœur
- ___ 40. des nausées ou l'estomac dérangé
- ___ 41. le fait de vous sentir inférieur(e) aux autres
- ___ 42. des muscles endoloris
- ___ 43. le sentiment que vous êtes surveillé(e) ou que les autres parlent de vous
- ___ 44. de la difficulté à vous endormir
- ___ 45. le fait d'avoir à vérifier et revérifier ce que vous faites
- ___ 46. de la difficulté à prendre des décisions
- ___ 47. la peur de voyager par autobus, métro ou train
- ___ 48. de la difficulté à reprendre votre haleine
- ___ 49. bouffées de froid ou de chaleur
- ___ 50. d'avoir à éviter certaines choses, endroits ou activités parce que vous en avez peur
- ___ 51. le fait de vous sentir la tête vide
- ___ 52. des engourdissements ou des démangeaisons de différentes parties de votre corps
- ___ 53. des serremments de gorge
- ___ 54. un sentiment de désespoir face à l'avenir

- ___ 55. de la difficulté a vous concentrer
- ___ 56. le fait de vous sentir faible de certaines parties de votre corps
- ___ 57. de vous sentir tendu(e) ou a bout de nerfs
- ___ 58. des sentiments de lourdeur dans les bras ou les jambes
- ___ 59. de penser a la mort ou a mourir
- ___ 60. trop manger
- ___ 61. vous sentir mal a l'aise quand les gens vous regardent ou parlent de vous
- ___ 62. avoir des pensees qui ne sont pas les vôtres
- ___ 63. avoir envie de battre, blesser ou faire mal a quelqu'un
- ___ 64. vous reveiller aux petites heures du matin
- ___ 65. avoir a repeter les memes gestes comme toucher, compter, laver
- ___ 66. passer des nuits blanches ou avoir le sommeil trouble
- ___ 67. avoir des envies de briser ou casser des choses
- ___ 68. croire ou avoir l'idee que personne ne veut partager
- ___ 69. vous sentir tres intimide(e) par les autres
- ___ 70. vous sentir mal a l'aise parmi les foules comme au cinema ou dans les magasins
- ___ 71. le sentiment que tout est un effort
- ___ 72. des crises de frayeur ou de panique
- ___ 73. vous sentir mal a l'aise de manger ou boire en public
- ___ 74. avoir souvent des disputes
- ___ 75. vous sentir nerveux(se) lorsque vous etes seul(e)
- ___ 76. les autres ne vous donnent pas le credit souhaite pour vos accomplissements
- ___ 77. le sentiment d'etre seul(e) meme lorsque vous etes avec d'autres

- ___ 78. vous sentir si agite(e) que vous ne pouvez pas rester assis(e) tranquille
- ___ 79. sentiment d'etre bon a rien
- ___ 80. le sentiment que quelque chose de mauvais va vous arriver
- ___ 81. le fait de crier et de lancer des objets
- ___ 82. avoir peur que vous allez vous evanouir en public
- ___ 83. le sentiment que les gens prendront avantage de vous si vous les laissez faire
- ___ 84. d'avoir des pensees a propos du sexe qui vous derangent beaucoup
- ___ 85. l'idee que vous devriez etre puni(e) pour vos peches
- ___ 86. des pensees ou des impressions de nature effrayante
- ___ 87. l'idee que quelque chose de serieux ne va pas avec votre corps
- ___ 88. ne jamais vous sentir proche d'une autre personne
- ___ 89. des sentiments de culpabilite
- ___ 90. l'idee que quelque chose ne va pas avec votre esprit

Appendix F
Short Marital Adjustment

4 Nom _____

Test d'ajustement marital

1. Faites une croix sur un des points de l'échelle ci-dessous, cela traduisant le degré de bonheur, à tout considérer, de votre présent mariage. Le point milieu "heureux" représente le point de bonheur que la plupart des gens retirent de leur mariage. L'échelle descend graduellement sur un côté pour les quelques-uns qui sont très malheureux en mariage. Elle va de l'autre côté pour les quelques-uns qui font l'expérience d'une extrême jouissance de félicité dans leur mariage.

Tres Malheureux	Heureux	Parfaitement Heureux
--------------------	---------	-------------------------

Etablissez une estimation approximative sur l'accord ou le désaccord entre vous et votre conjoint sur les items suivants.

S.V.P. cochez un choix seulement pour chaque question.

2. Gérer le budget
- Toujours d'accord
 - Presque toujours d'accord
 - Occasionnellement en désaccord
 - Fréquemment en désaccord
 - Presque toujours en désaccord
 - Toujours en désaccord
3. Questions de récréation
- Toujours d'accord
 - Presque toujours d'accord
 - Occasionnellement en désaccord
 - Fréquemment en désaccord
 - Presque toujours en désaccord
 - Toujours en désaccord

4. Démonstrations d'affection
- Toujours d'accord
 Presque toujours d'accord
 Occasionnellement en désaccord
 Fréquemment en désaccord
 Presque toujours en désaccord
 Toujours en désaccord
5. Les amis
- Toujours d'accord
 Presque toujours d'accord
 Occasionnellement en désaccord
 Fréquemment en désaccord
 Presque toujours en désaccord
 Toujours en désaccord
6. Relations Sexuelles
- Toujours d'accord
 Presque toujours d'accord
 Occasionnellement en désaccord
 Fréquemment en désaccord
 Presque toujours en désaccord
 Toujours en désaccord
7. Conventions: bon, juste, conduite, propre
- Toujours d'accord
 Presque toujours d'accord
 Occasionnellement en désaccord
 Fréquemment en désaccord
 Presque toujours en désaccord
 Toujours en désaccord
8. Philosophie de la vie
- Toujours d'accord
 Presque toujours d'accord
 Occasionnellement en désaccord
 Fréquemment en désaccord
 Presque toujours en désaccord
 Toujours en désaccord
9. Manière de s'arranger avec les beaux-parents
- Toujours d'accord
 Presque toujours d'accord
 Occasionnellement en désaccord
 Fréquemment en désaccord
 Presque toujours en désaccord
 Toujours en désaccord
10. Quand des désaccords s'élevaient, cela a généralement pour résultat que:
- le mari cède
 l'épouse cède
 l'accord se fait par concession mutuelles

11. Vous et votre conjoint vous engagez-vous dans des intérêts extérieurs ensemble? Tous _____, quelques-uns d'entre eux _____, très peu d'entre eux _____, aucun d'entre eux _____.
12. Durant vos moments de loisirs, préférez-vous généralement: aller "trotter" ailleurs _____, rester à la maison _____? Votre conjoint préfère-t-il généralement: aller "trotter" ailleurs _____, rester à la maison _____?
13. Avez-vous déjà souhaiter ne vous être jamais marié(e)? Fréquemment _____, occasionnellement _____, rarement _____, jamais _____.
14. Si vous aviez à refaire votre vie, pensez-vous que vous: épouseriez la même personne _____, épouseriez une personne différente _____, ne vous marieriez pas du tout _____?
15. Vous confiez-vous à votre conjoint: presque jamais _____, rarement _____, dans beaucoup de cas _____, dans tous les cas _____?