THE EFFECT OF CHILD TYPE AND BEHAVIOURAL IMPACT ON MOTHERS' ATTRIBUTIONS FOR CHILD BEHAVIOUR

by

JOSEPHINE GELLER

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Department of Psychology
The University of British Columbia
Vancouver, Canada

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Abstract

This study examined the impact of two relationship-focused variables on the formation of parent causal attributions for child behaviour. Previous work has focused on the influence of general parent variables, child variables, and situational factors on these attributions. The present study highlighted the importance of the relational context of parent-child interactions as an influence on parent attributions, and addressed two important aspects of this relational context. First, parent attributions formed in response to behaviours of their own children were compared with those formed in response to behaviours of unknown children of the same age and gender as their own children. Second, the behavioural impact (inconvenience or no inconvenience to the mother) of children's noncompliant behaviour on the mother was examined. Inconvenience was defined as the extent to which the mother was personally hassled or bothered by the child behaviour. Results indicated that with other children, the behavioural impact of child behaviours was positively related to stronger affective and behavioural responses. With their own children, mothers rated the cause of their child's noncompliance as less due to global and stable factors, and anticipated stronger affective and behavioural responses than with other children. Mothers also saw the cause of their own child's noncompliance as more due to themselves and within their own control than with other children. Regression analyses indicated that mothers' affective responses were predicted by the behavioural impact of the child's behaviour.
and by mothers' attributions regarding their own as well as their children's role in causing the behaviour. In contrast, mothers' behavioural responses were predicted only by mothers' ratings of personal controllability. Higher perspective taking scores were related to seeing the child's behaviour as less due to internal, controllable causes, and to lower anticipated affective responses. Higher empathic concern scores were associated with lower anticipated response ratings, and to higher ratings of personal controllability over the situation. Finally, greater investment in parenting was associated with stronger affective and behavioural responses, and to a decreased likelihood of seeing the child's behaviour as due to internal and controllable causes. These findings were interpreted within the framework of Dix's (1991) model of affective processes on parenting, and as an application of the social cognition phenomenon of positive attributional biases as extended by parents to their children.
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This thesis begins by providing general background information on attribution theory and related models. Studies involving parents' attributions for child behaviour will then be described, emphasizing the demonstrated relationships between parent attributions and parent characteristics, child characteristics, and situational variables. The relationship between parent attributions and parent behaviour will also be reviewed. A heuristic model outlining putative relationships among parent characteristics, child characteristics, and parent attributions in the context of the parent-child relationship will then be presented. This relationship is considered unique and may be characterized by particular patterns of parent attributions, affect, and behaviour that distinguish the parent-child relationship from relationships the parent has with other children. In elaborating on the uniqueness of the parent-child relationship, positive attributional biases in attribution formation will be described, and parents' extension of these biases to their children will be considered. Factors that may reduce a parent's tendency to extend positive attributional biases, such as parent inconvenience, will be considered. Finally, the relationships among parent empathy, parent investment and parent attributions will be addressed.

**Attribution Theory**

Attribution theory is an information-processing approach that considers social behaviour to be dependent on the individual's ongoing assessment of persons and behaviour (Dix & Grusec, 1985). The underlying assumption of this theory is that
individuals are naive scientists striving to understand, predict, and control the course of events in their lives (Heider, 1958). Generally, this approach emphasizes that behaviour depends on people's inferences about what is causing the events around them, the motives and traits that characterize individuals in an interaction, and the properties inherent in a social situation (Dix & Grusec, 1985).

Attribution theorists have focused on various aspects of the formulation of attributions. Most models are based on Heider's (1958) original formulation of attribution theory which stressed that individuals form beliefs that affect their actions, and that these beliefs, valid or not, need to be taken into account in understanding behaviour. Some theorists have addressed the processes guiding the formulation of attributions, including Jones and Davis' (1965) model of correspondent inference and Kelley's (1967) covariation model. Other models have focused on attributional outcomes. For example, Weiner's (1979) model describes the dimensions along which attributions are formulated, including inferences about the stability, locus, and controllability of the behaviour. This model also describes the impact of particular attributions, once formulated, on behaviour and affect. For instance, in a study examining judgments concerning the lending of class notes (Weiner, 1980), offers to lend notes were lowest when the cause of the need was seen as internal to the actor and as controllable (e.g., lack of effort). It was suggested that ascriptions to internal controllable
factors may maximize negative affect (disgust and anger) and promote avoidance behaviour.

Attributional theory has been extended beyond the bounds of social psychology and a recent emphasis on parent cognitions within the developmental literature (Sigel, 1985) has encouraged consideration of the attributions parents form about their children's behaviour. Parent attributions have been highlighted as important factors influencing both parent and, ultimately, child behaviours (Bugental & Shennum, 1984; Dix & Reinhold, 1987; Mackinnon, 1989). Attributional theory suggests that parenting behaviour may depend on parents' inferences about causes of children's behaviour. In accordance with these predictions, Dix and Grusec (1985) have summarized research showing that parents' attributions for their children's behaviour are related to child age, the type of child behaviour, and the parent's perception of the child's motivation and level of understanding. For instance, parents increasingly attribute child behaviours to internal, dispositional causes as children get older and are perceived to understand task demands. Attributional theory therefore may provide a useful framework for understanding or predicting parents' responses to child behaviours.

Parent Attributions and Behaviour

A number of researchers have linked parent attributions for child behaviour to subsequent parenting behaviour (Alexander, Waldron, Barton, & Mas, 1989; Bugental & Shennum, 1984; Dix & Grusec, 1985; Dix, Ruble, & Zambarano, 1989, Larrance & Twentyman, 1983; Mackinnon, 1989; Murphey & Alexander, 1991).
Using vignettes of child behaviour situations, Dix and his colleagues (Dix & Grusec, 1985; Dix, Ruble & Zambarano, 1989) found that mothers predicted that they would use more power-assertive discipline strategies when they inferred that their children understood the rules, had the capacity to act appropriately, and were responsible for their negative behaviours. Similarly, Mackinnon (1989) found that when mothers perceived their sons' behaviours to be negatively intended, they were more coercive in interactions with the child. A more pervasive attribution-behaviour link is suggested by the finding that parents known to have a history of abuse with their children form more negative attributions about their children's behaviour than non-abusive parents (Bauer & Twentyman, 1985; Larrance & Twentyman, 1983). More subtle behavioural differences, including facial expression and tone of voice, have been linked to mothers' attributions of their own power and control over the outcome of mother-child interactions (Bugental & Shennum, 1984). Finally, Murphey and Alexander (1991) found that "internal" parenting attributional styles, defined as parents' beliefs in their efficacy at affecting transient interactions with their children, were linked to parenting behaviour. For mothers, a more internal parenting style was related to increased provision of help in a cooperative parent-child building task. For fathers, a more internal parenting style was related to increased directiveness in both cooperative task and play situations.

Previous research in our lab (Geller, Johnston, & Gabille, 1991) has also addressed the attribution-behaviour relationship
in a study where mothers read descriptions of ambiguous negative events involving either themselves or their child. Mothers were asked to imagine that the situations happened to them or their child, answer a series of questions about what they thought caused each of the situations, and describe what they would do in each situation. Mothers' causal attributions in both types of situations (those involving themselves and those involving their child) were found to be related to various aspects of their predicted behavioural responses. For instance, less favorable attributions about the cause of their child's negative situation (i.e., viewing the cause of the situation as something that would be present in the future, and as something likely to influence other similar situations) were associated with more negative anticipated parenting behaviours, such as expressing negative emotion, actively blaming the child, or telling the child that he/she should have behaved differently.

Studies in the parenting literature addressing attribution-behaviour relationships can be distinguished into two groups. Some of this research has assessed "direct" attribution-behaviour links, in which parent attributions and behaviours were assessed in response to the same stimuli (Dix & Grusec, 1985; Dix, Ruble, & Zambarano, 1989). In these studies, parents are presented with descriptions of situations, asked to form attributions about the child's behaviour in the situations, and then asked what they would do if the situation happened in their own lives. Other studies have assessed attributions using questionnaires or stimulus materials, and then measured behaviour in a different
situation (Alexander, Waldron, Barton, & Mas, 1989; Bugental & Shennum, 1984; Larrance & Twentyman, 1983; Mackinnon, 1989; Murphey & Alexander, 1991). The convergence of findings (i.e., establishing an attribution-behaviour link) across the different types of methodological circumstances confirms that parent attributions are related to short-term parenting outcomes and are also consistent over time and situations.

It should be noted that the relationships among parent attributions, parent behaviours, and child behaviours are considered to be bi-directional. Although parent attributions are thought to influence parent behaviours (Dix & Reinhold, 1987; Dix, Ruble, & Zambarano, 1989) which in turn impact on child behaviours (Patterson, 1982), these influences are also acknowledged to occur in the opposite direction. Child behaviour obviously impacts on parent behaviour (Anderson, Lytton, & Romney, 1986; Bugental, Blue, & Lewis, 1990; Lytton, 1990; Maccoby & Martin, 1983; Patterson, 1982) and both parent and child behaviour contribute to the formation or change of parent attributions (Brunk & Henggeler, 1984). An illustration of the reciprocal influence of child behaviour on parent attributions is suggested in a study comparing the attributions of mothers of Attention Deficit Hyperactive Disordered (ADHD) children with those of mothers of nonproblem children (Sobol, Ashbourne, Earn, & Cunningham, 1989). In responding to written descriptions of child compliance and non-compliance in which they imagined that the child in the descriptions was their own, mothers of ADHD children viewed the causes of their child's behaviour as more
unstable than did mothers of control children. It is likely that mothers' experiences with these children (whose behaviour is characterized by known patterns of attentional and impulse control difficulties) has led them to form different attributions about the causes of child behaviours than mothers who have experience with non-ADHD children. Child behaviours therefore appear to impact on mothers' attributions.

**Review of Studies Involving Parent Attributions:**

In reviewing the parent attribution literature, three lines of research may be identified. First, researchers have focused on the relationship between parent characteristics and attributions formed about the causes of child behaviours. For example, some researchers have compared attributions of abusive parents with those of non-abusive parents (Bauer & Twentyman, 1985; Larrance & Twentyman, 1983). Second, the relationship between parents' attributions and experiences with different types of child behaviour have been elucidated. Studies in this group have examined attributions among parents who have children with learning difficulties (Himmelstein, Graham, & Weiner, 1991), aggressive behaviour, (Dix & Lochman, 1990; Reinhold & Lochman, 1991), and attentional difficulties (Sobol et al., 1989). Finally, studies have examined the relationship between parent attributions and situational variables, such as the specific type of child behaviour (Brunk & Henggeler, 1984; Dix & Grusec, 1985), and parent affect at the time of the encounter (Dix, 1989).

Thus, the following review of studies on parent attributions will be categorized into three groups: research on "parent
characteristics," "child characteristics," and "situation characteristics."

(i) **Parent Characteristics**

The most compelling evidence for the existence of different attributional styles associated with parent characteristics stems from the abuse literature. As noted above, compared with nonabusive mothers, mothers with a history of abusive parenting use a more negative, hostile attributional style in explaining their children's behaviour (Bauer & Twentyman, 1985; Larrance & Twentyman, 1983). For example, Larrance and Twentyman (1983) showed 10 abusive mothers, 10 neglectful mothers, and 10 mothers with no previous history of child maltreatment standard sequences of photographic stimuli of their own and another child in common situations. In each series of photographs, it could be inferred that some negative event had occurred, although the cause of the event was ambiguous. For instance, photographs depicted crayoned walls, broken toys, and the results of competitive games. The mothers were asked to state their attributions regarding the cause of the child behaviours described in the photographs. Compared to the nonabusive mothers, abusive mothers were more likely to attribute their children's good behaviour to unstable, external factors, and to see their children's bad behaviour as caused by stable and internal sources. In a similar study comparing abusive, neglectful, and normal mothers, Bauer and Twentyman (1985) found that abusive mothers interpreted child behaviour as more malevolent than control mothers, with neglectful mothers' attributions falling in between the other two
groups. These studies suggest that negative attributions for child behaviour may contribute to the precipitation of family violence. Further support for the link between parent attributions and violent behaviour comes from a study showing that in a sample of young mothers considered to be at risk for child maltreatment, mothers' levels of unrealistic expectations regarding children were positively correlated with their attributions of negative child intent, and both of these factors were related to mothers' level of punitiveness in response to hypothetical childrearing situations (Azar, 1989). In contrast to these findings, Rosenberg and Reppucci (1983) failed to find differences between abusive and nonabusive mothers' attributions for the cause of child transgressions. The absence of differences in this study compared to the other studies just described may be due to the lack of sensitivity of the attribution measure used by Rosenberg and Reppucci. Whereas the other studies in this section employed Likert scales ranging from 7 to 9 points, their study asked parents to answer true-false questions. Clarification of this difference in results awaits further study.

Maternal depressed mood is a parent variable noted for its association with child behaviour problems (e.g., Cunningham, Benness & Siegal, 1988; Griest, Wells, & Forehand, 1979). The relationship between depressed mood and a negative attributional style has been repeatedly demonstrated in the adult literature (e.g., Seligman, Abramson, Semmel, & Von Baeyer, 1979) and supports predictions made by the reformulated helplessness model.
of depression (Abramson, Seligman, & Teasdale, 1978). This model proposes that individuals who make attributions to stable, internal, and global causes of failure are more likely to respond in a helpless fashion to uncontrollable events. Although the relationship between depressed mood and attributional style has been repeatedly demonstrated, the impact of parental depressed mood on attributions formed about their children has seldom been explored. One exception is the study we conducted (Geller et al., 1991) examining mothers' attributions for their own and their children's behaviour as depicted in written situations. In this study, as expected, mothers' depressed mood predicted negative attributions along the dimensions of internality, controllability, globality, and stability in explaining negative events occurring in their own lives. More interestingly, depressed mood also predicted use of more internal and controllable attributions for negative events involving mothers' children. Depressed mood in mothers therefore was not only related to explanations about events in their own lives, but also influenced social cognitions concerning their children.

Gender is another parent characteristic that has been considered in relation to parent attributions. Although most research has focused on maternal attributions, a small number of studies have also included fathers. In a sample of high-conflict families of adolescents, ratings of dispositional attributions regarding family members (including children) did not differ between mothers and fathers (Alexander et al., 1989). Parents' perceived control over caregiving, and parental locus of control
have also been reported as similar for mothers and fathers (Murphey & Alexander, 1991). Furthermore, a recent study in our lab examining causal attributions formed in response to written descriptions of hyperactive and aggressive child behaviours in parents of children with ADHD also found no differences between mothers' and fathers' attributions (Johnston & Patenaude, 1991). In contrast, Sobol and his colleagues (1989) found that within a sample of parents of ADHD children, mothers rated the cause of their child's noncompliance as less due to the child and more due to the situation than did fathers. Thus, the findings regarding mother-father differences in attributions for child behaviour are somewhat equivocal although the majority of studies indicate no significant gender differences.

In sum, previous research has examined the relationship between parent characteristics and parents' causal attributions for their children's behaviour. Most notably, parents with a history of abuse or neglect use more negative attributional styles than parents with no history of child maltreatment. Additionally, preliminary work suggests that parents experiencing depressed mood are more likely to attribute the causes of their children's negative behaviours to more internal, controllable factors. Finally, although infrequently examined, results suggest few differences between mothers and fathers' attributional responses.

(ii) Child Characteristics

In addition to examining the relationship between parent characteristics and parent attributions for children's behaviour,
parents have also been distinguished according to characteristics associated with their children. Himmelstein, Graham, and Weiner (1991) compared attributions regarding the importance of childrearing practices on offspring outcomes among mothers of gifted and special education children. Child outcome was assessed across three domains: academic performance, social skills, and personality. Mothers of gifted children were found to attribute outcome to child-rearing to a greater extent than mothers of special education children across all three outcome domains. Additionally, mothers of only children were found to attribute greater importance to child-rearing practices than did mothers of multiple children. In sum, both perceived child success and child singularity in the family were associated with attributions of childrearing as an important cause of child behaviour.

Other work has focused on the attributions mothers of aggressive children form about their children’s behaviour. A consistent finding is that mothers of aggressive children make more negative, hostile attributions for child misbehaviour than do mothers of nonaggressive children (Dix & Lochman, 1990). Mothers of aggressive boys attribute the cause of boys’ non-compliant actions to more intentional causes, and see the behaviours as more reflective of negative personality dispositions in the child than mothers of nonaggressive boys. This effect has been demonstrated using videotaped depictions of unfamiliar mothers and children (Dix & Lochman, 1990), and audiotaped and written vignettes in which mothers were instructed
to imagine that the child in the vignettes was their own (Petit, Dodge, & Brown, 1988; Reinhold & Lochman, 1991). Mothers of aggressive boys have also been found to become more upset with child misbehaviour, and to endorse more forceful discipline responses than mothers of nonaggressive children (Dix & Lochman, 1990; Reinhold & Lochman, 1991). These findings are consistent with the attribution-behaviour link alluded to earlier. Given that, similar to their mothers, aggressive boys also show a negative attributional bias in explaining the cause of others' behaviours, it has been proposed that this style of biased social information processing may be learned in the family (Reinhold & Lochman, 1991).

Finally, as stated earlier, mothers of ADHD children form attributions that can be distinguished from those of mothers of normal children. In responding to written descriptions of child compliance and non-compliance in which mothers imagined that the child in the descriptions was their own, mothers of ADHD children viewed the cause of their children's behaviour to be more unstable and less controllable than did mothers of control children (Sobol et al, 1989). In another study conducted in our lab, parents of ADHD children who rated their children as more aggressive were more likely to attribute written descriptions of aggressive behaviours to controllable causes than were parents of ADHD children who did not rate their own children as aggressive (Johnston & Patenaude, 1992) As noted earlier, these studies highlight the potential role of child behaviour patterns in determining parent attributions.
The link between experiences with various types of child behaviour and parent attributions has also been demonstrated in nonclinical samples. Using a community sample of mothers, we found that mothers' ratings of conduct problems in their own children were significantly correlated with attributions formed in response to written child situations (Geller et al., 1991). Mothers who described their child as having more conduct problems attributed negative child events to more global and stable causes than did mothers who rated their child as having fewer conduct problems.

In summary, the attributions parents form about children's' behaviours are related to their experiences with their own children. This relationship has been demonstrated across parents of children with different levels of academic achievement, and different degrees of child aggressiveness, conduct problems, and impulsivity and hyperactivity.

(iii) Situational variables

The associations between parent attributions and parent characteristics or experiences with their own children have generally been explained in terms of broad response sets that parents hold regarding children's behaviour. That is, particular attributional styles have been associated, for instance, with parent abusiveness or with being the parent of an aggressive child, and these styles are thought to colour parents' impressions of child behaviour across different situations. Despite the demonstrated importance of parent and child characteristics in explaining parent attributions, considerable
variance in attributional ratings has remained unexplained. That is, variations in these ratings occur, not only between different groups or types of parents, but also within each of the groups across situations. It appears that situational factors also influence attribution ratings. This section will address the situational context variables that have been found to account for additional variance in explaining parent attribution scores.

Dix and colleagues have shown that variations in child behaviour are related to variations in parents' social inferences (Dix & Grusec, 1985). Mothers responded differently to scenarios of children engaging in altruistic behaviour (helping, sharing, showing concern), failures to be altruistic (not helping, sharing or showing concern), or explicit norm violations (fighting, stealing, lying). Altruistic behaviours were seen as more stable, general, intentional, controllable, and more the result of child dispositions than were failures to be altruistic or explicit defiance. Additionally, failures to be altruistic (for instance, not sharing) were rated as less intentional and blameworthy than overt defiant behaviours. Dix has suggested that the difference between these last two conditions may be a reflection of behaviour complexity. Parents may be more upset with complex negative behaviours that they infer children don’t understand or cannot control than with simpler negative behaviours that they infer children do understand and control.

An even more subtle variation in child behaviour, that of timing of the behaviour, has also been demonstrated to relate to parent attributions. Dix and Reinhold (1987) made videotapes
that depicted children disobeying simple requests (e.g., "put on your shoes before you go out") either immediately or following 15 seconds of continuing activity. Parents viewed immediate disobedience as more intended and more reflective of negative dispositions in the child than delayed disobedience. Dix and Reinhold (1987) postulated that this phenomenon reflects parents' inferences that a delay makes the task more difficult and therefore taxes the child's ability to execute requests.

Finally, parents' transient affective state is another contextual variable that may influence attributions. To test the effect of parent affect on attributions for child behaviour, Dix (1989) had mothers wait until they found themselves in either happy, angry, or neutral moods and then watch videotapes of mothers and children in discipline situations. Mothers who reported feeling angry prior to watching the tapes attributed the observed child behaviours to more dispositional characteristics, anticipated that compliance would be harder to obtain, and felt that greater sternness should be used than did mothers who felt in neutral moods prior to watching. Mothers who were angry also expected more negative behaviour from their children in a series of situations than did mothers who were unemotional or who were in happy moods. Findings in this study therefore demonstrated mood-consistent biasing of attributions.

In another study (Dix & Reinhold, 1987), mothers were induced to feel either happy, angry, or unemotional and then shown videotaped interactions of children disobeying parental requests. Unlike the previously cited findings, the angry mood
group did not form significantly more negative attributions than the neutral mood group, although there was a trend in that direction. The explanation proposed by the experimenters was that the mood induction was not fully successful. However, interestingly, the group induced to have a happy mood reported more negative cognitions than did unemotional parents. These findings are not in accordance with predictions made from the mood-congruent processing perspective (see Blaney, 1986) and are difficult to integrate with current theories of parent cognition and affect.

Although not specific to the area of attributions, the impact of situational context variables on general parental attitudes was investigated in a study examining parents’ use of physical punishment. Holden (1989) found that mothers fell into one of three groups with respect to general attitudes towards physical punishment; a positive group, comprised of mothers who generally endorsed use of physical punishment; a negative group, including mothers who rarely endorsed use of physical punishment; and an ambivalent group, consisting of mothers whose attitudes fell midway between the other two groups. Holden found that a situational variable, whether the discipline setting was private or public, played a significant moderating role between mothers’ attitudes toward punishment and their actual use of physical punishment. Although negative attitude mothers were unlikely to use physical punishment in any contexts, positive attitude mothers modulated their punishment intentions slightly in public settings, and ambivalent mothers’ punishment intentions were
significantly greater in private than in public settings. This study therefore highlights the importance of considering both situational context variables (the type of setting) as well as pre-existing cognitions (attitudes regarding physical punishment) in obtaining a complete picture of parenting behaviour, in this case, mothers' actual use of punishment.

In sum, a number of factors associated with the situational context of parent-child interactions have been identified as related to parents' social cognitions. These range from type of child behaviour, to the parent's affective state at the time of the interaction. In addition, Holden's punishment study highlights the importance of considering both pre-existing and situational variables in predicting ultimate parenting outcomes.

A Move Towards Relationship-Focused Variables

In summary then, parent, child, and situational context variables have been demonstrated as being related to parent attributions. In addition, a small number of studies have considered the relationships among parent and child characteristics and parent attributions in the context of the parent-child relationship (Bugental, 1989; Bugental & Shennum, 1984; Kochanska, 1990). This approach is analogous to the trend in marital research, specifically in cognitive approaches to intimate relationships, of examining the way distressed partners form attributions within the context of the relationship. A consistent finding in this literature is that marital satisfaction is related, not to particular spouse behaviours, but to the attributions the partners form about one another's
behaviour (Berley & Jacobsen, 1984; Bradbury & Fincham, 1989; Fincham & Bradbury, 1987). For instance, locating the cause of the relationship problems in one’s partner, and viewing the cause as stable and global is associated with marital dissatisfaction. This finding highlights the importance of considering not only characteristics of the individuals involved, but also characteristics of the individuals in the context of a particular relationship. It also shifts the focus of the research from individual pathology to a more systemic view of dysfunctional relationships.

Illustrating this more systemic approach, Bugental and Shennum (1984) developed and tested a transactional model of adult-child interactions. Parent characteristics, such as self-perceived power as caregivers, and child characteristics, such as responsiveness and assertiveness, were seen as interacting to influence parent attributions and behaviour in parent-child interactions. For instance, in a series of studies examining these characteristics, Bugental and Shennum found that parents who attributed low power to themselves responded more adversely to unresponsive children than did parents with high self-perceived power in relationships. These adverse responses were defined in terms of facial expression, tone of voice, and conflictual messages to the children (e.g., smiling while attempting to exert control in the interaction). Consistent with a bi-directional, transactional perspective on parent-child relationships, the adverse responses of mothers with low self-perceived power then functioned to increase child
unresponsiveness. In other words, these mothers used a response style that exacerbated difficult child behaviours, which in turn maintained mother behaviours and attributional beliefs. Conversely, attributions of high self-power in mothers appeared to act as a buffer against the potentially negative impact of difficult child behaviour. These mothers demonstrated no significant alterations in their behaviour as a function of child behaviour. Additionally, when the high self-perceived power mothers interacted with unresponsive children, child unresponsiveness was reduced.

Another study illustrating the importance of considering mother and child variables pertaining specifically to the relationship they share was conducted by Mackinnon (1989). This study involved observations of mothers and their sons working on an etch-a-sketch task. Prior to engaging in the task, mothers and sons formed attributions about each other's behaviour by responding to a series of written scenarios involving mother-child interactions in potentially conflictual situations. When both mother and child perceived the other's behaviour in the scenarios to be negatively intended (reflective of a negative attributional style used in the context of that relationship), their behaviour in the etch-a-sketch task was more coercive than when one or no members of the dyad perceived the others' behaviour as negatively intended. This research therefore suggests that in predicting the outcome of mother-child interactions, it is necessary to take into account both parent and child characteristics.
Child Type and the Extension of Positive Attributional Bias

This section will describe features of the parent-child relationship that make it unique from other relationships, and will report on what is known about the impact of these features on parent attributions.

Attributional biases are well-known phenomena that are described in the social cognition literature (e.g., Fiske & Taylor, 1991). They refer to deviations from normative processing in which the social perceiver systematically distorts (overuses or underuses) some otherwise accurate or appropriate procedure. For instance, the actor-observer bias refers to individuals' tendency to ascribe others' behaviours to dispositional causes and one's own behaviour to situational determinants (Fiske & Taylor, 1991). In this thesis, "positive attributional biases" refer to attributional bias hypothesized to have ego-enhancing effects on the social perceiver. An example of a positive attributional bias is the self-serving bias. This is the tendency of the actor to attribute desirable actions to internal psychological causes (dispositions in him/herself) and undesirable actions to the external situation (Miller & Ross, 1975). There is currently speculation that parents use positive attributional biases in explaining events in their children's lives (Dix & Grusec, 1985; Gretarsson & Gelfand, 1988; Larrance & Twentyman, 1983). That is, that parents excuse their children for involvement in negative events and emphasize child dispositional characteristics as causal in positive events.
In describing the context in which parent attributions take place, Dix and Grusec (1985) highlight features of the parent-child relationship that explain why a positive attributional bias might be extended to one's children. They note that parents are enmeshed with children in a closely-bound social and biological relationship, and are at once socializers, regulators, and caretakers of their children. An additional, contextual factor that may enhance parents' extension of the positive attributional bias to their children is parent-child intimacy. Because the parent-child relationship is characterized by powerful emotional bonds, children's behaviour may be considered to be particularly significant to parents. That is, children's behaviour has personal relevance for parents that may cause them to share emotionally in their children's' experiences. This bond may enhance the parent's ability to place him or herself in the position of the child, and hence to make the same attributions for child behaviour as for their own behaviour. Alternately, to the extent that parents view themselves in a positive light, if they consider their children's behaviour as reflective of themselves and their parenting abilities, they can be expected to form attributions that will cast their children, and hence themselves, in a favorable light.

In a study designed to test whether parents use a positive bias in explaining their own children's behaviour, Gretarsson and Gelfand (1988) conducted structured interviews in which mothers were asked to describe and form attributions about their children's recent behaviours. Positive parental bias was found
in mothers’ perceptions of their children, except when the
children were seen as difficult to control. That is, mothers of
nonproblem children explained their children’s prosocial
behaviour by referring to personality dispositions and attributed
their children’s’ misdeeds to situational influences. The
authors point out that this finding replicates Dix’s earlier work
(Dix & Grusec, 1985) showing that parents generally attribute
both real and fictional positive child behaviours to
dispositional, intentional causes, and attribute negative
behaviours to more situational causes. Thus, it appears that
mothers use a favorable attributional style and extend a positive
attributional bias to their children when recalling behaviours of
their own children, imagining their own child behaving in
predetermined ways, or simply reading about fictional children.
However, because these different methods and stimuli were not
compared within a single study, it is not known whether favorable
attributions appear more or less in response to parents’ own
child compared to unrelated or fictional children. That is,
previous studies fail to address the question of whether mothers’
positive attributions for child behaviour reflect a motivational
bias stemming directly from the parent-child relationship or a
pervasive cultural schema regarding the general capacities of
children. To answer this question, examination of the degree of
correspondence between mothers’ attributions for their own and
other children must be performed within the same study.

Larrance and Twentyman (1983) examined this question in
their study comparing the attributions of abusive, neglectful,
and control parents which included an "own vs. other" child manipulation. In accordance with predictions that parents extend positive biases to their own children, there was a trend for control mothers to form significantly less internal and stable attributions in explaining their own child’s behaviour than when explaining the behaviour of an unknown child. Interestingly, abusive parents showed the opposite pattern of results, and blamed their own children more than other children for negative behaviours.

The study reported here examined the relationship between child type (own vs. other) and parent attributions for child behaviour in a nonclinical sample. Given the intimacy and closeness of the parent-child relationship and the known preference of individuals to form attributions casting themselves in a favorable light, it was hypothesized that attributions parents form regarding their own children’s behaviour would be more favorable than those formed about unknown children. In this study, written descriptions of child noncompliance were used to elicit mothers’ attributions.

**Mother Inconvenience**

Aside from the vicarious emotions parents experience in response to their own children’s behaviour, child behaviour often has a direct impact on the parent. Given the nature of caregiver relationships, particularly with young children, parents are in close, and sometimes constant, contact with their children for extended periods of time. As a result, parents are often either the direct beneficiaries or "victims" of their children’s
behaviour. For instance, as mentioned earlier, a child's noncompliant behaviour may upset parents because the behaviour is considered to be reflective of poor parenting ability. However, parents may also be upset by children's noncompliant behaviour because the misbehaviours inconvenience them in some more practical manner. For instance, a parent whose child refuses to clean off the table to allow dinner to be served may well be forced to perform the task him or herself. The hassle of having to perform the task may result in the activation of parent emotion, and may affect parent attributions and choice of parent behaviour strategies.

The parent emotion-attribution link was addressed earlier in Dix's work where parents' transient affective states were correlated with attributions for child behaviour (Dix, 1989; 1991). Dix has also described a model of parenting that stresses the important influence of emotion on parenting responses to children's behaviours (Dix, 1991). Essentially, this model describes how child, parent and contextual factors activate parent emotion, which, once activated, affects parenting behaviour. Central to this model is the parent's ability to adopt child-centered motives as opposed to parent-centered motives. Child-centered motives involve the pursuit of goals thought to ultimately benefit the child, whereas parent-centered motives are directed aimed at profiting the parent. Adopting child-centered motives may involve parents setting aside their own personal desires or wishes, and may be diminished in situations where the parent is emotionally aroused. For
instance, a mother may fail to activate child-centered motives because she feels rushed, angry, or inconvenienced. In such a situation, the parent’s behaviour may be fuelled by self-focused motives (e.g., use of harsh discipline strategies to terminate an aversive child behaviour). These behaviours are regarded as less beneficial for the child because, although they result in short-term gains for the parent (the aversive child behaviour is stopped), they fail to produce long-term gains for either the parent or the child (the child does not learn more appropriate behaviours). The model therefore ties parent behaviour and affective state together within the context of specific parent-child interactions.

Given the numerous opportunities for parents to be inconvenienced by their children’s negative behaviours, the greater likelihood of emotional activity in situations in which the parent is inconvenienced, and the link between parent emotional activity and attributions (Dix & Reinhold, 1987), inconvenience may be an important influence on parents’ attributions. Previous research has failed to address the influence of the direct impact of child behaviours on parent attributions and responses. For instance, in the example of the mother who asks her child to clear his homework off the table, it is not known whether the mother’s attributions would differ if the child’s refusal to clean off the table did not inconvenience her (e.g., if the child was working at a table other than the dinner table). In this second example, the mother would be less inconvenienced, may experience less negative affect, and may be
more able to adopt child-centered motives. Thus, her attributions for the child's behaviour may be more favorable.

This study examined whether parent attributions for child behaviour change depending on the direct impact of the behaviour on the parent. We know from previous research using situations in which the parents are not inconvenienced, that parents generally form favorable attributions about children. For instance, when faced with a choice between blaming a negative child behaviour on the child or on the situation, parents generally blame the situation. In those types of circumstances, after all, parents have little to lose (other than failing to reprimand a "bad" behaviour), and everything to gain (e.g., my child is innocent, therefore I am a good parent) by "letting the child off the hook" and faulting a source external to the child. However, if the situation involves the parent instructing the child to do something, and the child's noncompliance negatively impacts on the parent, the parent has more at stake in forming their attributions. Some preliminary evidence provided a clue to what might be expected in those cases. In the previous study we conducted on parent attributions (Geller et al., 1991), parents were asked to describe recent negative events involving their children, and to respond to attribution questions regarding the locus, controllability, specificity, and stability of these child behaviours. In a small proportion of the negative experiences mothers described for their children the mothers were directly affected by the child's negative experience. A comparison of the attributions mothers formed in those "inconvenienced" situations
with those in which they were "uninvolved" revealed significantly more negative attributions in the "inconvenienced" situations. However, the small sample of "inconvenienced" situations, an imprecise definition of "inconvenienced", and the absence of control imposed on the types of situations recalled render these findings difficult to interpret.

The study reported here examined the relationship between the behavioural impact (parent inconvenience) of noncompliant child behaviour and parent attributions. It was hypothesized that the attributions parents form in situations in which they are inconvenienced would be less favorable than those formed in situations in which they are not inconvenienced by child behaviour. To assess this relationship, an operational definition for inconvenience was provided and predetermined situations were used as stimuli so that all parents responded to the same conditions.

Secondary Research Questions

The next two sections describe variables that may be related to parent attributions for and responses to child behaviours. Because relatively little is known about the relationship between these variables and parent responses in the context of parent-child interactions, predictions are conjectural and the analyses considered exploratory.

Parent Empathy Definitions of empathy have varied greatly, but recent conceptualizations have included the integration of both cognitive and affective components (Eisenberg & Strayer, 1987; Feshbach, 1978; Hoffman, 1977). In this integrative-
affective model, the empathic reaction is postulated to be a function of an individual's cognitive ability to discriminate affective cues from others and to assume the perspective and role of another person, and the individual's emotional responsiveness (Feshbach, 1987). This section will briefly review the known links between parent empathy and parent behaviour.

Empathy can be considered an interactional, relationship-focused variable that may be related to parent responses in the context of parent-child interactions (Egeland & Sroufe, 1981; Feshbach, 1987; Pulkinen, 1982). For instance, parent empathy is consistently inversely related to parent aggressiveness (Miller & Eisenberg, 1988), and empathy scores in parents are positively related to child self-control, parent investment, involvement and affect (Feshbach, 1987). These findings have been consistent across samples of abusive mothers, nonabusive mothers attending child guidance clinics, and normal control mothers (Feshbach, 1987). Additionally, in a 12-year longitudinal study, Pulkinen (1982) found that child-centered guidance, which included parents' consideration of the child's opinions, sustained interest and control over the child's activities, and parent trust and warmth, was a prerequisite for the child's later development of self-control. Empathic responses and behaviours in parents are therefore positively related to a number of favorable outcomes in children.

The relationship between empathy and parenting behaviour is consistent with Dix's (1991) work addressed earlier regarding the impact of parents' emotional activation on subsequent behaviour.
Dix stated that mothers who fail to activate child-centered motives because of negative emotional arousal, (e.g., angered by a prior child behaviour) may concentrate on self-focused, rather than child-oriented motives. This child- vs. parent-centered distinction is similar to what some studies in the parent empathy literature have referred to as empathic vs. personal distress responses. Combining the attributional, empathy, and emotional activation perspectives, it was expected that parents who report lower degrees of parental empathy would experience stronger negative emotional activation, form less favorable attributions regarding their children’s behaviour in situations in which they were inconvenienced, and would employ more negative parent behaviours. In contrast, it was predicted that high empathy scores would "buffer" the negative impact of being inconvenienced.

Parenting Investment  Similar to parent empathy is the construct of investment in the parenting role. It is presumed that the tendency of "normal" parents to perceive the causes of their children's behaviour favorably reflects, at least partially, a motivation to view themselves in a favorable light (i.e., "when my child does good, I do good"). But what about when the parent, for some reason, does not see him or herself as linked to the child, and therefore does not see child behaviour as reflective of him/herself? If the child is not seen as being an extension or in any way a reflection of oneself, then motivation to view that child's behaviour in a favorable light may be reduced. Although we do not know why some parents form
more negative attributions regarding their own children's behaviour than other parents, it is possible that parents who are less invested in their role as parents do not see their children as extensions of themselves, and therefore fail to extend positive attributional biases to their children. This study examined the relationship between intensity of parent investment and parents' attributions for their children's behaviour to help clarify this matter.

Purpose

The purpose of this study was to determine the impact of two relationship-focused variables, child type and mother inconvenience on the formation of maternal attributions. The relationships between parent attributions for child behaviour and parent affect and anticipated parent behaviour were also examined. Finally, the relationships among parent empathy, investment in parenting, and parent attributions for child behaviour were investigated.
CENTRAL HYPOTHESES:

1. Mothers' attributions for the cause of their own children's misbehaviour will be more favourable (i.e., less internal, global, stable, and controllable, and more external) than attributions formed about unknown other children.

2. Mothers' attributions for the cause of children's misbehaviours when the misbehaviour does not inconvenience the mother will be more favourable (i.e., less internal, global, stable, and controllable, and more external) than attributions formed when the misbehaviour does inconvenience the mother.

SECONDARY HYPOTHESIS:

3. Mothers' attributions will be related to anticipated affective and behavioural responses for children's behaviour. It was predicted that less favourable attributions for child behaviour (i.e., more internal, controllable, global, and stable attributions, and less external attributions) would be related to stronger anticipated affect and to mothers' increased likelihood of doing something about the child's behaviour.

4. Mothers' attributions will be related to empathy and investment in parenting. It was predicted that more favourable attributions for child behaviour (i.e., less internal, controllable, global, and stable attributions, and less external attributions) would be related to higher empathy and investment in parenting scores.
Study Design

To test the hypotheses of this study, written stimulus materials were used to elicit mothers' attributions for child behaviours. Mothers were asked to imagine various situations in which a child fails to comply with their request. In half of the situations, the child was described as their own, and in the other half, as an unknown child of the same age and gender as their own child. For half of the mothers, the situation involved noncompliant child behaviour that inconvenienced the mother, and for the other half of the mothers, the same noncompliant child behaviour resulted in a mild form of property damage but did not directly inconvenience the mother. After reading each situation, mothers were asked to respond to a series of questions regarding their attributions for the cause of the child behaviour (assessing attributions of child internality, externality, stability, globality, and controllability), and their anticipated affective and behavioural responses to the child behaviour.

The attribution dimensions of stability, locus, and controllability are from Weiner's attribution model (1979). The globality dimension has been used in assessing the attributions of depressed individuals (e.g., Seligman, Abramson, Semmel, & Von Baeyer, 1979). Similar questions based on these four dimensions have been used in a number of studies of parent attributions and have distinguished between different parent characteristics, (e.g., Larrance & Twentyman, 1983), child characteristics (e.g., Sobol et al., 1989), and child behaviours (e.g., Dix & Grusec, 1985). Previous work in our lab (Geller et al., 1991) has also
used these dimensions, and found that "globality" and "stability" scores predicted mothers' ratings of child conduct problems, and "internality" and "controllability" scores were sensitive to changes in maternal depressed mood.

Whereas most investigators have focused solely on mothers' attributions regarding the child's causal role in noncompliant behaviour, this study also examined the extent to which mothers saw their own behaviour as causally related to the child's noncompliance. Bugental and Shennum (1984) found that in predicting mothers' behaviour in interactions with child confederates, it was necessary to consider mothers' perceptions of both her own and the child's ability to influence the interaction. In addition, although the link between parent affect and parent attributions regarding the child's role in causing the behaviour has been postulated (e.g., Dix, 1991), the relationship between mothers' attributions regarding their own role in the parent-child interaction and their affective responses has not yet been explored. Therefore, in this study, mothers were also asked to rate the extent to which they thought the child's noncompliance occurred because of something about themselves (mother internality) and because of something that they had control over (mother controllability).

Although the generalizability of responses to written stimulus situations to responses to real child behaviours is not assured, previous research in our lab (Geller et al., 1991) has found similar patterns of results using mothers' responses to analogue situations and to recalled events from real life. In
addition, the use of an analogue methodology to control for situational variations was considered appropriate because of the situational specificity of cognitions (Miller & Ross, 1975; Nisbett & Ross, 1980). Given that individuals' attributions are influenced by the contextual details of situations, analogue situations that control multiple facets of the situation were needed to isolate the effects of the manipulated variables. An additional advantage of having subjects imagine written situations and their responses to these situations is that this methodology does not rely on participants' recall of real life situations. Therefore, the potential problem of attributions being influenced by participants' knowledge of the ultimate outcome of the situation is avoided. Finally, although child confederates could have been used to control for situational variations while still presenting mothers with real child behaviours, this methodology was considered undesirable due to the difficulty of making such situations believable, and because of the need for deception.
Method

Procedure

Mothers responded to advertisements in local newspapers and community centers by telephoning the principal investigator. Callers were provided with a rationale and overview of the study, and descriptive information gathered during this telephone contact determined eligibility for participation. Eligible mothers had at least one male child in the home between the ages of 6 and 10 years. The target child for the research was identified as the oldest male child in the family between 6 and 10 years of age. To meet eligibility criteria, this child was required to be biologically-related to the mother. In addition, because the instructions, stimulus materials, and questionnaires required a minimum level of literacy in English for completion, mothers who had completed less than 10 years of schooling were not included in the study.

If mothers were interested in participating, they were mailed a packet of questionnaires and were asked to find a quiet time at home to fill out the measures. Mothers were randomly assigned to one of two behavioural impact conditions. Mothers assigned to the inconvenience condition received packets containing child behaviour descriptions which personally inconvenienced mothers. Conversely, mothers assigned to the no inconvenience condition received packets containing child behaviour descriptions which resulted in a mild form of property damage but did not directly inconvenience the mother. Mothers were informed during the telephone contact that they had the
right to refuse to participate or to withdraw from the study at any time, and that the return of completed questionnaires would be indicative of consent for participation. The questionnaires required approximately 45 minutes to complete.

Subjects

One hundred and thirty-one mothers of children aged 6 to 10 years were mailed questionnaire packets, and 100 mothers returned completed packets, representing a 76% response rate. Mothers ranged in age from 28 to 46 years (M = 36.52) and 18 were single mothers. Family socioeconomic status ranged from 1 to 5 on the Hollingshead Four Factor Index (Hollingshead, 1975), with an average status of 2.82 (upper middle class). The average child age was 7.89 years. Sixty-three of the children were the oldest or the only child in the family. The number of children in each family ranged from 1 to 5, with a median of 2. All mothers were biologically related to the target child. Forty-two percent of mothers reported they had at some time sought help for their own psychological problems, and 16% reported they had sought help for psychological problems in the target child. Mothers were randomly assigned to the inconvenienced (n = 46) or not inconvenienced (n = 54) behavioural impact condition. The two groups did not differ significantly on any of the preceding variables.

Measures

Each mother received a package containing: an explanatory cover letter (Appendix A), a demographic information form (Appendix B), instructions for the attribution ratings (Appendix
C), the stimulus situations each followed by attribution, affect, and behaviour questions (see Appendix D), a modified version of the Perspective-Taking subscale and the Empathic Concern subscale of the Interpersonal Reactivity Index (Davis, 1980) (Appendix E), and the Investment in Parenting subscale of the Parenting Role Scale (Polzien & Abidin, 1991) (Appendix F). Mothers were instructed to complete the questionnaires in the order just described. The questionnaire packet also contained three measures not addressed in this proposal that were given at the end of the other measures and were not expected to influence responses to the preceding questionnaire. These included measures of parent depressed mood, child behaviour problems, and general parent attributional style. Finally, the package contained a stamped, addressed envelope in which the completed questionnaires were returned.

**Demographic Information** Mothers were asked to provide: their age, occupation, highest level of education, the occupation and highest educational level of the father, ethnicity, and family status (e.g., two-parent or one-parent family). They were also asked to provide the age and gender of their child(ren), and to indicate whether they were the biological mother of each child. Finally, mothers were asked to indicate whether they had ever sought help for child or maternal psychological problems. This demographic information was used to confirm eligibility of subjects. No subjects who returned complete questionnaire packets were eliminated from the study.
**Instructions for Ratings** Prior to reading and responding to the stimulus situations, mothers read a cover letter providing detailed instructions for the attribution, affect, and behaviour ratings (Appendix C). They were asked to read each situation imagining that, as indicated, the situation involved themselves and either the target child (in "own child" descriptions), or a fictional child, "Johnny" (in "other" child descriptions). In the instructions for ratings preceding the stimulus situations, "Johnny" was described as a boy who was the same age as the target child. For the "own child" situations, the target child’s name was written in the appropriate spaces in the questionnaire instructions. Mothers were asked to imagine that each situation was a separate event, and were reminded that there were no right or wrong answers.

**Stimulus Materials** Thirty-two stimulus situations (16 Inconvenience and 16 No Inconvenience) were pilot-tested using female undergraduate psychology students. Students read various situations involving an unknown boy failing to comply with their request. For each situation, students were asked to rate the extent to which they would be inconvenienced by the situation, the extent to which they thought the situation was realistic, and the age of the boy in each situation. The first two ratings were made on 9-point Likert scales, ranging from "not at all inconvenienced" to "extremely inconvenienced," and "extremely unrealistic," respectively. For the boy’s age estimation, students were asked to choose among three age groups; preschool aged (0 to 5), school-aged (6 to 10), or pre-adolescent (11 to
From these situations, five inconvenienced situations that depicted approximately equivalent degrees of impact of child behaviour on the mother \((M = 6.71, \ SD = .36)\) with their five not inconvenienced counterpart situations that depicted approximately equal levels of low impact of child behaviour on the mother \((M = 3.67, \ SD = .42)\) were selected. The selected stimulus situations had mean realistic ratings of 5.70 or more \((M = 6.54, \ SD = 1.80)\), and were estimated to be reflective of the behaviour of boys in the 6 to 10 year old range by a mean of 70% of the respondents. Pilot testing thus ensured that the inconvenienced situations were more bothersome than the not inconvenienced situations, and permitted selection of situations perceived as realistic and depicting behaviour typical of 6 to 10 year old boys.

Using the 10 situations selected from the pilot testing, a total of 20 situations was created. For each situation selected, an "own child" and "other child" description was written, involving either the target child, or "Johnny," respectively. Mothers therefore read various situations involving either the target child or "Johnny" failing to comply with their request. Half of the mothers read situations in which both children's (target and "Johnny") behaviour inconvenienced the mother, and half of the mothers read situations in which the child behaviours did not inconvenience the mother. In order to eliminate the influence of order effects, the situations were presented in a random order across mothers. However, precautions were taken to ensure that two versions (target and "Johnny") of one situation were not presented sequentially. The following are examples of
inconvenienced and not inconvenienced situation types for the "own" child condition:

OWN/NO INCONVENIENCE
You are waiting at the check-out line in the grocery store. You are standing in front of your cart, and child’s name is at the back of the cart, holding onto the handle. __________ starts swinging on the handle, pushing the cart forwards and backwards with each swing. You ask him to stop playing with the cart and be still. After a few minutes, you see the cart bang into the check-out counter as __________ pushes it forward.

OWN/INCONVENIENCE
You are waiting at the check-out line in the grocery store. You are standing in front of your cart, and __________ is at the back of the cart, holding onto the handle. __________ starts swinging on the handle, pushing the cart forwards and backwards with each swing. You ask him to stop playing with the cart and be still. After a few minutes, you feel the cart digging into your ankles as __________ pushes it forward.

After reading each situation, mothers were asked to describe in their own words what they thought caused the child’s behaviour. These responses were content analyzed and categories reflecting the various causes mothers reported were rationally derived. Responses were first categorized into causes considered to be either internal or external to the child. Responses reflecting something about the child (e.g., "he may be testing
me") were coded as internal, and responses reflecting something about the situation (e.g., "because of the public place, he may have thought my reaction would be minimal") were coded as external. Internal causes were subsequently further broken down into blaming and nonblaming responses. Blaming causes (e.g., "he was showing off for friends by not responding") were coded as internal/blaming, and nonblaming causes (e.g., "he had too much energy") were coded as internal/nonblaming. Therefore, mothers' written descriptions of what caused the child's behaviour were coded into one of three categories; internal/blaming, internal/nonblaming, and external. Twenty-five of the questionnaires were randomly selected and coded separately by two independent coders, and kappa reliability coefficients were calculated for each of the categories. Kappa coefficients for the three categories were .77, .76, and .49, for internal/blaming, external, and internal/nonblaming, categories, respectively, yielding an overall kappa value of .67.

Following the open-ended question concerning the cause of the child's behaviour, mothers were asked to rate on 9-point scales, the extent to which they thought the cause of the child's behaviour was internal (on a scale ranging from "totally due to child" to "not at all due to child"), external (on a scale ranging from "totally due to external circumstances" to "not at all due to external circumstances"), global (on a scale ranging from "influences just this particular situation" to "influences most situations"), stable (on a scale ranging from "lasting" to "a one time thing"), and controllable (on a scale ranging from
"not at all under the child's control" to "completely under the child's control"). Mothers were then asked to rate the extent to which they thought the child's noncompliance occurred because of something about themselves (on a scale ranging from "not at all due to me" to "completely due to me") and because of something that they had control over (on a scale ranging from "not at all under my control" to "completely under my control"). The rating scales are provided in Appendix D.

In addition to attribution ratings, mothers were asked to indicate their affective and behavioural responses to each stimulus situation. The affect rating (Appendix C) was designed to provide information about the mother's anticipated emotional responses to the situations. Mothers were asked to rate the extent to which they would be upset by each of the situations on a 9-point Likert scale ranging from "not at all upset" to "extremely upset". This measure also served as a check for the "inconvenience" manipulation. This rating scale has been used in previous work (Dix & Grusec, 1985; Geller et al., 1991; Krech & Johnston, 1991) and found to be sensitive to variations in child behaviour stimuli.

Two items assessed mothers' anticipated behavioural responses to the situations. First, mothers were asked to rate how likely they would be to do something about the child's behaviour on a 9-point Likert scale ranging from "not at all likely" to "extremely likely." Second, they were asked to describe, in their own words, what they would do if they experienced each of the situations (see Appendix D). These
responses were content analyzed and categories reflecting the various behaviour strategies mothers reported were rationally derived. In cases where mothers provided more than one behavioural strategy, only the first was coded. Responses were coded into one of five categories; punishment, inactive response, shift of focus, talking, and reprimand. Punishment was coded if the mother described either making the child do something (e.g., "make child apologize") or removing a privilege from the child (e.g., "take his plane away"). Inactive responses included descriptions of ignoring the child or failing to respond to the child behaviour (e.g., "I wouldn’t do anything"). Talking was coded for any response that involved reasoning, explaining, or talking to the child about the behaviour (e.g., "let him see the consequences of not listening, and ensure he understood"). Reprimand was coded for responses that involved scolding or speaking sternly to the child about his behaviour (e.g., "Take him aside and speak to him sternly"). Finally, shift of focus was coded for responses in which the mother attempted to involve a third person (e.g., "call the janitor" or "talk with a parent") or distracted the child (e.g., "find something more interesting to do"). As above, 25 of the questionnaires were randomly selected and coded separately by two independent coders, and kappa reliability coefficients were calculated for each of the categories. Kappa coefficients for the five categories were as follows: inactive response (.85), talking (.83), shift of focus (.74), punishment (.68), and reprimand (.57), yielding an overall kappa value of .73.
**Parent Empathy** Parent empathy was assessed using a modified version of the Perspective-Taking (PT) subscale of the Interpersonal Reactivity Index (IRI) and the Empathic Concern (EC) subscale of the IRI (Davis, 1980) (Appendix E). These 7-item subscales measure the tendency to adopt the point of view of other people and to experience warmth, compassion, and concern for others, respectively. The PT subscale was adapted to apply specifically to mothers' relationships with children. For instance, the item "When I'm upset with someone, I usually try to 'put myself in his or her shoes' for a while" was changed to "When I'm upset with a child, I usually try to 'put myself in his or her shoes' for a while." For each of the statements, mothers were asked to indicate on a 5-point Likert scale, the degree to which they agreed with the statement. Higher scores indicate higher empathy. The adult versions of these scales have demonstrated moderate internal consistency and test-retest reliability (Davis, 1980). For this study, Cronbach's alpha coefficients were calculated for the two subscales, yielding values of .76, and .44 for the modified Perspective Taking and Empathic Concern subscales, respectively. Because the internal consistency of the empathic concern subscale was low, adjusted alphas were calculated deleting each of the subscale items. Deletion of item 3, ("When I see someone being unfairly taken advantage of, I feel kind of protective toward them") increased the internal consistency to .59. As a result, this modified EC subscale was used in subsequent analyses.
Parenting Investment. The extent to which participants were invested in their role as mothers was assessed using the Intensity of Investment subscale of the Parenting Role Scale (Polzien & Abidin, 1991) (Appendix F). Mothers were asked to indicate the extent to which they agreed with eight statements on 5-point Likert scales. Sample statements include "My children are my greatest source of pride" and "It is very important that my children feel close to me." Higher scores indicate stronger commitment to and investment in parenting. This scale has demonstrated fair internal consistency (standardized item alpha is .79) and correlates with measures of parenting stress, attachment, and parenting style (Polzien & Abidin, 1991). In this study, the Cronbach's alpha internal consistency coefficient for the Intensity of Investment subscale was .70.
Results

Study Design

A 2 X 2 (Child Type X Behaviour Impact) design was used to test the primary hypotheses. The child type (own/other) manipulation was a within-subjects comparison, and the behaviour impact (inconvenienced/not inconvenienced) manipulation was a between-group comparison. Using this design, each mother responded to two versions of each of five situations. One version of the situations involved the mother's own child, and the other version involved another child of the same age and gender. Half of the mothers read 10 situations in which they were inconvenienced (i.e., five own child/mother inconvenienced, and five other child/mother inconvenienced situations) and half of the mothers read 10 situations in which they were not inconvenienced (i.e., five own child/mother not inconvenienced, and five other child/mother not inconvenienced situations).

Alpha-Protecting Strategies

In order to minimize the possibility of committing Type 1 errors, an alpha-protecting strategy was developed for each type of planned analysis. For correlational analyses involving more than one bivariate relationship, a conservative alpha level of .01 was used in interpreting the results. Correlation coefficients with significance levels in the range of .01 to .05 were interpreted as trends. In interpreting multivariate analysis of variance (MANOVA) results, univariate tests were only considered when the overall multivariate F value for the relevant factor was significant. Post hoc analyses were performed using
Tukey's Honestly Significant Difference (HSD) test, a test known for maximizing control over familywise error rates when making pairwise comparisons among group means (Howell, 1987). In interpreting regression analyses, the unique contribution of each block of variables in predicting variance in the dependent variables was not examined unless the overall regression was significant. Similarly, the unique contribution of individual variables within each block was not examined unless the block in which the variable was entered contributed significantly to the total explained variance. Finally, in the two instances in which it was not possible to use a MANOVA in comparing group means and in which a series of analysis of variance (ANOVA) comparisons were consequently conducted, alpha levels were adjusted by dividing .05 equally among the number of dependent variables.

Preliminary Analyses

Aggregation of Attribution Ratings. To determine the extent to which the attribution ratings for child behaviour were related, intercorrelations between the five ratings (child internality, externality, controllability, globality, and stability) were performed. The correlations ranged from .09 (internality with externality) to .76 (globality with stability), and more than half of the correlations were statistically significant. Therefore, the ratings did not measure completely independent dimensions. As a result, a principle-components analysis was performed to aggregate scores from the five attribution ratings for child behaviour. First, ratings on each of the attribution questions were summed across the 10 situations
(five "own" and five "other" situations) for both inconvenienced and not inconvenienced mothers to yield total internality, externality, controllability, globality, and stability scores for each mother. Initial principle-components analysis using these total scores revealed two factors with eigenvalues greater than 1.0 (2.16 and 1.18). Repeating the analysis forcing a two-factor solution resulted in factors accounting for 43.2 and 23.7% of the variance in ratings, respectively. Following Varimax rotation, globality and stability ratings loaded above .50 on the first factor (G/S), and internality and controllability ratings loaded above .50 on the second factor (I/C). Externality ratings failed to load on either factor (factor loadings were .13 and .11 on the G/S and I/C factors, respectively). Table 1 shows the factor loadings of the G/S and I/C factors. Therefore, for analyses of attributions for the child’s behaviour, two child attribution scores, G/S and I/C, were computed by summing ratings across the globality and stability dimensions and the internality and controllability dimensions, respectively. For each situation, each score could range from 0 to 18, with higher scores corresponding to more global, stable, internal, and controllable attributions. Mothers’ summed totals for G/S and I/C attributions ranged from 2.4 to 16.7, with a mean of 9.1, and from 2.0 to 16.0, with a mean of 9.5, respectively.

Relationships Among Coded Responses and Ratings. As noted earlier, mothers responded to two types of questions assessing their attributions for children’s behaviours and their anticipated behavioural responses. They provided written, open-
ended descriptions of what they thought caused the child's behaviours and what they thought they would do in each situation. They also responded to rating scales examining specific attribution dimensions and made a rating of their likelihood of reacting to each child behaviour. For purposes of clarity in distinguishing these two types of responses, scores from the open-ended questions will be referred to as coded responses, and scores from the Likert scale items will be referred to as ratings.

The relationship between the coded responses and their corresponding rating scales was examined. Mothers' coded responses to the open-ended question assessing what caused the child's behaviour were summed across the 10 situations to obtain total scores; internal/blaming (M = 3.3), internal/nonblaming (M = 4.7), external (M = 1.7), and uncodable responses (M = .3). Similarly, total attribution ratings were calculated by summing the G/S and I/C ratings across the 10 situations (both inconvenienced and not inconvenienced situations). The relationships between coded attribution responses and attribution ratings for child behaviour were then examined using Pearson correlations. These correlations are reported in Table 1. As indicated in the table, internal/blaming coded responses were positively related to G/S attribution ratings, and there was a trend for internal/blaming responses to be related to I/C attribution ratings. There was also a trend for external coded responses to be related to lower I/C ratings.
Mothers' coded responses to the open-ended question assessing anticipated behavioural strategies were also summed across the 10 situations to yield total scores. The mean of each of the coded categories were as follows: reprimand ($M = .75$), shift of focus ($M = .84$), inactive response ($M = .98$), punishment ($M = 3.33$), and talking ($M = 2.62$), and uncodable responses ($M = 1.46$). Similarly, a mean total anticipated behavioural rating was calculated by summing mothers' ratings across the 10 situations. These ratings ranged from 1.0 to 8.6, with a mean of 5.2 (out of a maximum possible rating of 9). The relationships between coded behavioural strategies and the behavioural rating were then examined using Pearson correlations. These correlations are reported in Table 2. As indicated, there was a trend for coded reprimand strategies to be positively related to anticipated behavioural ratings, and inactive strategies were negatively related to behavioural ratings.

**Manipulation Check.** To determine whether the inconvenienced situations were perceived as more upsetting than the not inconvenienced situations, an independent $t$ test was performed comparing total anticipated affect ratings provided by mothers in the inconvenienced condition (summed across the 10 situations) with those from mothers in the not inconvenienced condition. Confirming the manipulation, mothers in the inconvenienced condition reported they would be significantly more upset about the child behaviour than mothers in the not inconvenienced condition, $t(97) = 2.61, p < .01$. 
Main Analyses.

Child Type and Behavioural Impact. To determine whether mothers' attribution ratings for the cause of children's behaviours were related to whether the children were their own (hypothesis 1) and to whether they were personally inconvenienced (hypothesis 2) by the situations, a two-way MANOVA, with one between-group factor (inconvenienced, not inconvenienced) and one within-group factor (own child, other child), was conducted, with G/S and I/C child attribution scores summed over the five situations of each type as dependent variables. Means and standard deviations for these attribution ratings are presented in Table 3. With the use of Wilks' criterion, the combined dependent variables were significantly affected by child type, $F(2, 95) = 21.56, p < .001$. The dependent variables were not affected by behavioural impact or by a Child Type X Behavioural Impact interaction. Follow-up univariate analyses revealed that only the G/S attribution rating was significantly affected by child type $F(1, 96) = 40.94, p < .001$. As predicted, other children's behaviours were seen as more due to global and stable causes than were own child behaviours.

A similar analysis was conducted using summed totals for mothers' coded responses to the open-ended questions (internal/blaming, internal/nonblaming, and external) as dependent variables in three separate analyses of variance (ANOVAs), with one between-group factor (inconvenienced/not inconvenienced) and one within-group factor (own/other). Mothers' coded responses for each of the three attribution
dimensions were summed across the five situations of each type (own and other), so that the range of values for each response was 0 to 5. Separate ANOVAs, rather than MANOVAs, were used for this set of analyses because the three variables (internal/blaming, internal/nonblaming, and external) were linearly dependent. That is, knowledge of scores of any two variables allowed the third to be predicted. Nonparametric analyses were not used because this would have resulted in a significant loss of power, and because of the difficulty of using a within subjects factor (child type) in nonparametric tests. Means and standard deviations of the coded attribution responses are presented in Table 3. A conservative alpha of .017 (.05/3) was used because of the number of comparisons. Significant child type effects were detected for internal/nonblaming, $F(1,98) = 54.00, p < .001$ and external responses $F(1,98) = 54.05, p < .001$. Mothers made more internal/nonblaming attributions for their own children’s behaviour than they did for other children’s behaviour. However, they were more likely to attribute child behaviour to external causes when thinking of other children versus their own children. Internal/blaming responses were not related to the manipulated variables. No behavioural impact effects or Child Type X Behavioural Impact interactions were detected.

To determine whether mothers’ attributions for their own role in causing the child behaviours were related to the manipulated variables, a two-way MANOVA was conducted, with total mother internality and mother controllability (summed across the
five situations of each type) as dependent variables. This analysis examined whether child type and behavioural impact were related to the extent to which mothers saw the child's behaviour as due to something about themselves (mother internality) and to their perception of control over the behaviour (mother controllability). Means and standard deviations of the two mother attribution dimensions are presented in Table 4. With the use of Wilks' criterion, the combined dependent variables were significantly affected by child type, $F(2, 96) = 113.56, p < .001$, and by the interaction between child type and behavioural impact $F(2, 96) = 7.78, p < .001$. Follow-up univariate analyses revealed a significant child type effect for mother internality, $F(1, 97) = 39.97, p < .001$ and a significant Child Type X Behaviour Impact interaction for mother controllability, $F(1, 97) = 12.28, p < .001$. The child type by behavioural impact interaction for mother controllability was followed up with Tukey's Honestly Significant Difference (HSD) post hoc comparisons. This analysis revealed a significant child type effect across both inconvenienced and not inconvenienced situations ($p < .05$), and no significant differences between situation types (inconvenienced/not inconvenienced) in either the own or the other child situations. Mothers rated the cause of the child's noncompliance as more due to something about themselves, and as something that was more under their control in the own child situations than in the other child situations.

Finally, to determine whether mothers' affect and anticipated behaviour ratings were related to the manipulated
variables (own/other, inconvenienced/not inconvenienced), a two-
way MANOVA was conducted with the total anticipated affect and
behavioural ratings (summed across the five situations of each
type) as dependent variables. Means and standard deviations of
anticipated affect and behavioural ratings are presented in Table
5. With the use of Wilks' criterion, the combined dependent
variables were significantly affected by child type, $F(2, 96) =
82.74, p < .001$, behaviour impact, $F(2, 96) = 3.45, p < .05$, and
by the interaction between child type and behavioural impact,
$F(2, 96) = 25.64, p < .001$. Follow-up univariate analyses
revealed significant Child Type X Behavioural Impact interactions
for both variables ($F(1, 97) = 23.47, p < .001$, and $F(1, 97) =
43.08, p < .001$, respectively). Tukey's HSD post hoc comparisons
were used to follow up the significant Child Type X Behavioural
Impact interactions for anticipated affect and behavioural
ratings. For the anticipated affect rating, in the not
inconvenienced situations, mothers reported stronger affect in
situations involving their own child than in those involving
another child ($p < .05$). No own/other differences were detected
across the inconvenienced situations. In situations involving
other children, mothers reported stronger affect in the
inconvenienced situations than in the not inconvenienced
situations ($p < .05$), but no inconvenienced/not inconvenienced
differences emerged in the own child situations. Therefore,
behavioural impact only influenced mothers' affective responses
to other children, but not their own. For anticipated
behavioural response ratings, mothers anticipated responding more
in the own situations than in the other situations across both levels of situation inconvenience (p's < .05), but they were only more likely to respond when inconvenienced than when not inconvenienced in the other child situations (p < .05).

To further examine the relationship between the manipulated variables and mothers' behaviour, mothers' coded anticipated behavioural strategies (punishment, inactive response, shift of focus, talking, and reprimand) were used as dependent variables in five separate 2 X 2 analyses of variance (ANOVAs). Mothers' coded responses for each behavioural strategy were summed across the five situations of each type (own and other), so that the range of values for each behavioural response was 0 to 5. As in the previous analysis using coded response categories, separate ANOVAs were used because the five variables were linearly dependent. Means and standard deviations of the coded attribution responses are presented in Table 5. A conservative alpha level of .01 (.05/5) was used in interpreting the results from these analyses. For punishment responses, mothers described use of punishment responses more with their own children than they did with other children, F(1, 98) = 81.82, p < .001. Inactive responses were related to child type, F(1, 98) = 38.54, p < .001, behavioural impact, F(1, 98) = 7.01, p < .01, and to the interaction between child type and behavioural impact, F(1, 98) = 8.42, p < .01. However, Tukey's HSD comparisons revealed significant differences only between own and other child situations across both inconvenienced and not inconvenienced situations. In both cases, inactive responses were more
frequently used for other children than for own children. No inconvenienced/not inconvenienced differences were detected across either the own or other child situations. For shift of focus responses mothers were more likely to involve another adult or distract the child when the child was not their own, $F(1, 98) = 7.90$, $p < .01$. There was a trend for mothers to be more likely to reason or explain things to the child (talking responses) when they were personally inconvenienced by the situation $F(1, 98) = 5.18$, $p < .05$. Finally, there was also a trend for mothers to be more likely to reprimand the child in "inconvenienced" situations than in "not inconvenienced" situations $F(1, 98) = 3.94$, $p < .05$.

Relationships Among Attributions and Affect. To determine whether mother attributions for their own and children’s behaviour were related to their anticipated affective ratings (hypothesis 3), a multiple regression analysis was performed using anticipated affect ratings as the dependent variable and child age, the behavioural impact of the situation, and mothers’ attributions for their own and the children’s behaviour as independent variables. In this analysis, attribution ratings were summed across all 10 situations for each mother. Because mothers differed in whether they had read situations in which they were inconvenienced or situations in which they were not inconvenienced, behavioural impact was dummy-coded (i.e., either as a 0 or as a 1 for the "inconvenienced" and "not inconvenienced" mothers, respectively) and used as a blocking variable.
Variables were entered simultaneously and tested for their unique contribution in predicting affect ratings. Three blocks of variables were entered into the regression. Behavioural impact and child age were entered in one block, the two summed attribution scores for child behaviour dimensions, G/S and I/C, were entered in a second block, and the two attribution ratings for mother behaviour, mother internality and controllability, were entered in a third block. The range of mother affect ratings averaged across the 10 situations was between .3 and 8.1 (M = 4.8). Mother internality and controllability ratings averaged across the 10 situations ranged from 0.0 to 6.8 (M = 2.4), and from 0.0 to 7.6 (M = 3.6), respectively. Table 6 displays the bivariate correlations between the independent and criterion variables (r), the standardized regression coefficients (b) after entry of all six variables in the equation, the $R^2$ change for each block of variables when entered last into the equation, and the total $R^2$ for the entire solution.

When controlling for the block with child age and behavioural impact, and the block with mothers' attributions for their own role in causing the child behaviour, mothers' attributions for the child's behaviour contributed significantly to the model $F(2, 90) = 6.48$, $p < .01$. Inspection of the standardized beta weights reveals that within the child attribution block, only I/C attributions contributed significantly to the prediction of affective ratings. When controlling for the block with child age and behavioural impact, and that with mothers' attributions for the child's behaviour,
mothers' attributions for their own behaviour contributed significantly to the prediction of affective ratings ($F(2, 90) = 7.19, p < .001$). Inspection of the standardized beta weights reveals that within the block of mother attributions, only mother internality ratings contributed significantly. Therefore, mothers' attribution ratings for both the children's and their own behaviour accounted for unique variance in predicting affect ratings. Specifically, higher I/C attributions for the child's behaviour, and higher personal internality attributions were related to stronger affective response ratings.

**Relationships Among Attributions and Behaviour.** To determine whether mother attributions for child behaviour were related to their anticipated behavioural ratings (hypothesis 4), a similar multiple regression was performed using the anticipated behavioural ratings as the dependent variable and child age, the behavioural impact of the situation, and mothers' attributions for their own and the children's behaviour as independent variables. As in the regression predicting affective ratings, the independent variables were entered in three blocks; behavioural impact and child age, the two summed attribution for child behaviour dimensions, G/S and I/C, and the two attribution ratings for mother behaviour, mother internality and controllability. Table 6 displays a summary of the analysis.

When controlling for the block with child age and behavioural impact, and the block with mothers' attributions for their own behaviour, mothers' attributions for the child's behaviour failed to contribute significantly to the prediction of
behaviour. However, when controlling for the block with child age and behavioural impact, and that of mothers' attributions for the child's behaviour, mothers' attributions for their own role in causing the child's behaviour did contribute significantly to the prediction of behaviour $F(2, 90) = 5.50, p < .01$. Inspection of the standardized beta weights reveals that within the mother attribution block, only mother controllability ratings contributed significantly to the prediction of behaviour. Therefore, in predicting the likelihood that mothers would do something about the child's behaviour, only attributions of personal control accounted for a significant amount of variance in behavioural rating scores.

**Relationships among Affect and Behaviour.** To determine the relationship between affect and behavioural ratings, a Pearson correlation was conducted between the two ratings, revealing a significant, positive relationship, $r = .54, p < .001$. Similarly, Pearson correlations were conducted between anticipated affective ratings and coded behavioural and attribution responses, and between coded attributions and behavioural strategies. These correlations are reported in Table 7. Similar to the regression analyses in which I/C attributions predicted affect, coded internal child attributions were also related to affect ratings. More internal attributions (both blaming and nonblaming) were related to stronger affective responses. Unlike the regression analyses in which attribution ratings failed to predict the likelihood of mothers responding to the child's behaviour, some of the specific behavioural
strategies were predicted by the coded attribution responses. For instance, internal/blaming attributions were positively related to reprimanding, and there was a trend for internal/blaming attributions to be negatively related to inactive responses and to shifting focus. Internal/nonblaming attributions were negatively related to use of reprimand strategies, and there was a trend for internal/nonblaming attributions to be related to use of talking strategies. Finally, anticipated affective ratings were positively related to reprimand strategies, and there was a trend for affect ratings to be related to inactive responses.

Empathy and Investment in Parenting. To determine whether the two empathy subscales of the IRI (perspective taking and empathic concern) and the Investment in Parenting subscale of the Parent Role Scale were related to mothers' attributions for their own and their children's behaviour, and to their anticipated affective and behavioural responses to child behaviours, Pearson correlations were conducted. These correlations are reported in Table 8. As indicated in this table, higher perspective-taking scores were related to lower anticipated affective responses, and to lower internal/controllable attributions. No relationships were detected between mothers' attributions for their own behaviour and perspective taking. There was a trend for mothers who scored high on empathic concern to be more likely to feel that they had personal control over the situations, and to be less likely to anticipate reacting to the children's behaviours. Finally, mothers who were more invested in their role as parents
were more likely to be upset and to do something about the children’s behaviours. Mothers who were more invested as parents were also less likely to attribute the child’s behaviour to internal, controllable causes.
Discussion

This study examined whether mothers’ attributions for child behaviours and their anticipated affective and behavioural responses were affected by child type (own vs. other) and by the behavioural impact of child behaviour. Results indicated that with their own children, mothers made less global and stable attributions about child noncompliance, and greater attributions of personal internality and controllability than with other children. Mothers anticipated stronger affective and behavioural responses with their own children than with other children, but with other children only, stronger affective and behavioural responses were related to the behavioural impact of child behaviours. Regression analyses indicated that mothers’ affective responses were predicted by the behavioural impact of the child’s behaviour and by mothers’ attributions regarding their own as well as their children’s role in causing the behaviour. In contrast, mothers’ behavioural responses were predicted only by mothers’ ratings of personal control over the child behaviour. Mothers’ ability to perspective take was related to seeing the child’s behaviour as less due to internal, controllable causes, and to lower anticipated affective responses to the behaviour. Mothers’ feelings of empathic concern were associated with lower likelihood of doing something about noncompliant child behaviours, and to higher ratings of personal controllability over the situation. Finally, mothers who were more invested in their role as parents were less likely to see the child’s behaviour as due to internal and controllable causes,
and were more upset by, and likely to do something about child behaviour.

**Child Type and Behavioural Impact**

As predicted, mothers’ attributions for child behaviour were influenced by child type. Mothers were more likely to see child noncompliance as reflective of global and stable causes (G/S attributions) when the child was not their own than when the child was their own. Contrary to prediction however, attributions of internality and controllability were not affected by child type. Given that the design of the study was such that mothers read each situation twice, with only the child in the description differing, the absence of a child type effect on internality and controllability attributions may be due to the difficulty of regarding the same behaviour as controllable in one child and as uncontrollable in another child of the same age and gender. However, because attributions of globality and stability reflect mothers’ expectations surrounding the likelihood of the behaviour’s recurrence in the future and in other situations, mothers (who have a history with their own children) may feel more able to distinguish between their own and other children with regards to such expectations. These findings are in agreement with the trend in Larrance and Twentyman’s (1983) study of mothers without a history of abuse to view the cause of their own child’s transgressions as less stable than that of an other child. Results from this study are consistent with the proposal that the relational context of parents and children is an important determinant of parent attributions of globality and
stability for child behaviours, and supports the proposed positive bias parents may have concerning their own children’s behaviours. In this study, mothers’ desire to see their own children’s behaviour as nonproblematic (and therefore to see themselves as good parents), may have allowed them to minimize their own children’s noncompliant behaviour by viewing it as more of a "one shot deal" than the identical behaviours performed by other children.

Child type (i.e., own vs. other child) effects were also detected in mothers’ coded responses to the attribution questions. As predicted, internal nonblaming causes were described more frequently with mothers’ own child. Contrary to prediction, however, external causes were described more frequently with another child. Therefore, although mothers were less likely to blame the situation as the cause of their own children’s behaviour, when the cause was identified as within the child, mothers were less likely to see the behaviours as their own children’s fault. Internal, blaming responses were not affected by child type. These results can be interpreted by incorporating parents’ extension of positive biases to their children as described earlier in this paper with adults’ general perceptions of children’s behaviours. Because the intimacy and closeness of the parent-child relationship may result in parents viewing children’s behaviour as reflective of themselves, it was proposed that parents may use a positive attributional bias in explaining events in their own children’s lives. In addition, because dispositional and controllable attributions, and
attributions of intentionality increase with child age (e.g., Dix & Grusec, 1985), and adult attributions about children reflect inferences regarding children's general capacities (i.e., use of less blaming attributions in explaining the behaviour of children who are perceived as less able; Fincham & Emery, 1988), there may be a pervasive cultural schema to view the general capacities of children as low, and a general tendency to use nonblaming attributions in explaining children's behaviours. Combining these two ideas, the results from the coded responses can be parsimoniously interpreted. Given that parents have as their primary goal a positive conception of themselves (as suggested by the social cognition literature (e.g., Fiske & Taylor, 1990), they will endorse nonblaming attributions for children and extend positive attributional biases to their own children as long as their primary goal (a positive self view) is not compromised. Therefore, consider first mothers' responses to other children. In this study, because other children's behaviour in the situations may not have been seen as reflective of themselves (as evidenced by mothers' lower overall personal controllability and internality ratings with other children), and mothers have a general tendency to excuse children's behaviours, mothers were free to blame external causes (e.g., the children's parents) in explaining the behaviour. With their own children, however, blaming external circumstances would be more difficult, since mothers may have in part identified themselves as the external situation, and ego-preserving needs would take priority over the tendency to excuse children's behaviours. As a result, mothers
used more internal, but nonblaming attributional explanations with their own children than with other children. Therefore, although with their own children, mothers used explanations that identified the cause of the behaviour as within the child, the cause was also described in a nonblaming fashion, such as "he didn’t realize that..." or "he was tired." In this way, the primary goal of finding an explanation that reflected well on themselves was accomplished, and both types of children (own and other) were blamed as little as possible. It should be noted that because this is a post hoc explanation, further testing is required to determine the strength of these findings.

Contrary to prediction, behavioural impact, or the extent to which mothers were personally inconvenienced by child behaviours did not influence mothers’ G/S or I/C attribution ratings or coded attribution responses for child behaviours. A number of possible explanations were considered. It is unlikely that the absence of a behavioural impact effect on attributions for child behaviour was due to a weakness in the manipulation because the situations were pilot-tested to ensure that the inconvenienced situations were significantly more bothersome than the not inconvenienced situations. In addition, a manipulation check within this study determined that the inconvenienced situations were significantly more upsetting than the not inconvenienced situations. It is also unlikely that the failure to detect a significant effect reflected a lack of statistical power. In this study, the power to detect a significant difference between inconvenienced and not inconvenienced conditions for a medium
effect size (with a sample of 100) was .71. Two possible explanations remain. First, it may be that noncompliance is simply a stronger stimulus than situation inconvenience in determining mothers' attributions for child behaviour. That is, in considering the causes of child behaviour, mothers may be more influenced by children's failure to comply than by the actual consequences of the noncompliance. An alternative explanation is that social desirability factors influenced mothers' responses to the inconvenienced situations. Mothers may have felt that it would reflect badly on them if they allowed personal afflictions to influence their attributional responses to children's behaviours. Social desirability effects could be reduced by reminding parents that there are no right or wrong answers, and by encouraging honest responses.

In contrast to mothers' attribution responses, where only child effects were detected, mothers' affective and anticipated behavioural response ratings were affected by an interaction of child type and behavioural impact of child behaviour. With regards to affect, mothers indicated that they would be more upset in response to noncompliance in their own child than in another child, but only in situations in which they were not personally inconvenienced. In situations in which mothers were inconvenienced, affective responses were the same with their own and other children. Although contrary to prediction, this pattern of results suggests that the forces acting on mothers' responses to their own children are different from those involved in their interactions with other children. With their own
children, the intimacy of the relationship and the investment mothers have regarding their own child's behaviour may cause child noncompliance to be most salient in determining mothers' affective responses, overpowering any possible added influence of behavioural impact. On the other hand, the same behaviours performed by a child about whom mothers did not feel a sense of personal investment, did not elicit strong affective responses unless mothers were personally inconvenienced by the behaviour. Once again, these results support the proposal that in understanding parent-child interactions, child behaviours cannot be viewed in isolation, and the relational context, or past interactional history of the parent and child need to be considered.

With regards to mothers' anticipated behavioural response ratings, mothers reported that they would be more likely to do something about their own child's noncompliance than that of another child, and that these own child ratings were high regardless of the extent to which they were inconvenienced. However, mothers anticipated responding more when they were inconvenienced than when they were not inconvenienced by another child's behaviour. These findings suggest that mothers have a lower threshold to act with their own children than with other children, and that similar to affective responses, mothers' behaviours with other children are more under the influence of situational cues, such as the extent to which they are personally inconvenienced by the child behaviour. Relating these results to the proposal that parents view their children and their
children's behaviour as an extension of themselves, the stronger tendency to do something about own child behaviours may reflect mothers' wish to prevent undesirable child behaviours (which reflect badly on themselves) from recurring. It is interesting that although mothers made more negative G/S attributions with other children's behaviour, they reported greater anticipated behavioural responses with their own children. This pattern of findings, as with mothers' affect ratings, is contrary to prediction, and suggests that variables other than parent attributions for child behaviour may be involved in predicting parents' immediate behavioural responses to child behaviours. Specifically, the relational and situational contexts appear to be determinants of parent responses to child behaviours. It should be noted that because explanations regarding the influence of the manipulated variables on mothers' affective and behavioural responses were developed post hoc, further research is needed to confirm these findings. However, results from this study extend previous research findings identifying situational cues (e.g., public vs. private setting) as predictors of mothers' use of child discipline strategies (Holden, 1989). Together, the pattern of affective and behavioural results suggests that overall, mothers' own children's behaviour has personal relevance for them, eliciting strong affective and behavioural responses, and that mothers' reactions to other children's noncompliant behaviour is more under the situational influence of the impact of child behaviours.
The behavioural strategies mothers anticipated using were also related to the manipulated variables. Contrary to the prediction that more negative attributional responses would be associated with stronger anticipated behaviour, mothers were more likely to use punishment strategies and less likely to use an inactive response style (i.e., do nothing or ignore) or a shift of focus strategy (i.e., distract child or involve a third person) with their own child than with another child. These findings are consistent with mothers' higher anticipated behavioural ratings with their own children. Overall, the greater use of active responses with own children and less active responses with other children may reflect the greater importance their own child's behaviour holds for mothers, and their reluctance to discipline a child for whom they do not feel responsible. Greater use of shift of focus strategies with other children appears to be due to mothers' increased likelihood of involving a third person, specifically, the other child's parent, in dealing with the situations. There was a trend for talking and reprimand strategies to be used more in situations in which mothers were inconvenienced by the child behaviour. The impact of situation inconvenience on talking responses may reflect the belief that children should be made to understand the consequences of their actions when someone is personally inconvenienced. Mothers' greater use of reprimand responses in situations in which they were inconvenienced may be related to the link established in this and other studies (Dix, 1989; Dix & Grusec, 1985; Dix & Reinhold, 1991) between reported affect and
behaviour. This interpretation is consistent with Dix's (1991) model of affective processes in parenting, in which parent emotions are seen as activated by a number of factors, one being outcome relevance to the parent (e.g., being personally inconvenienced by child behaviour). Therefore, according to Dix's model, in this study, situation inconvenience may have influenced mothers' behavioural tendencies through the effect it exerted on affect.

Finally, mothers' attributions regarding their own role in causing noncompliant child behaviours were also affected by child type. Not surprisingly, in situations involving their own child, mothers rated noncompliant child behaviours as more due to themselves and as more under their own control than in situations involving an other child of the same age and gender. These results support the proposal made in the introduction of this paper that the closely bound relationship parents share with their own children causes parents to view their children's behaviours as personally relevant to, and therefore reflective of themselves. The impact of child type on mothers' attributions of personal internality and controllability may also be related to the association between mothers' stronger affective and behavioural responses with their own children. According to Dix's (1991) framework of affective processes in parenting, in which parent appraisals are identified as one of the multiple factors eliciting parent emotional activation and subsequent behavioural responses, mothers' appraisals that they were involved in causing their own child's behaviour may have elicited
an emotional response, which impacted on the likelihood with which they anticipated responding. Detection of a child effect in mothers' attribution ratings surrounding their own role in causing noncompliant child behaviour, and the potential role these attributions had in eliciting mother affect and behaviour suggests that these self attributions make up an important component of mothers' cognitive processes during parenting interactions. The behavioural impact of child noncompliance did not influence mothers' attributions regarding their own role in causing child behaviour. It may be that in responding to questions regarding the internality and controllability of their own actions in causing child behaviour, the actual impact of the behaviour was not as salient as the noncompliance itself. That is, although mothers may have seen themselves as exerting control over the child failing to respond to their request, they may not have seen the next step, that is, the impact of the child's noncompliance, as related to their own behaviour.

Relationships Among Attributions, Behaviour and Affect. Consistent with Dix's (1991) model of affective processing in which multiple factors are described as influencing parent emotional activation, three predictors of mothers' affective responses to child noncompliance were identified in this study. It should be noted that although some variables are described as "predicting" other variables, conclusions regarding the direction of causality cannot be made. The relationships among parent attributions, parent affect, and parent behaviour are considered to be bi-directional, and although parent attributions may
influence parent affect and parent behaviours, these influences are also acknowledged to occur in the opposite direction. First, in predicting affect, the extent to which mothers were personally inconvenienced by the child's behaviour accounted for unique variance in mothers' affect ratings, with higher affect associated with greater situational inconvenience. Second, as predicted, the extent to which mothers saw the child's behaviour as controllable and as due to the child (I/C attributions) also explained significant unique variance in affect ratings. Finally, mothers' own attributions of personal internality significantly predicted affective response ratings. The relationship between affect and I/C attributions, but not G/S attributions suggests that mothers' feelings about child noncompliance were most strongly related to their answer to questions such as "did he do it on purpose?" rather than questions concerning the representativeness of the behaviour for that child in other situations and across time. The finding that mothers were more upset when they felt that the child behaviour was due to internal causes is consistent with Jones & Davis's (1965) model of correspondent inference, in which hedonic relevance is related to stronger affective responses. Situations in which mothers felt more involved in causing the child behaviour had greater hedonic relevance for them, and were consequently associated with stronger emotional reactions.

In contrast to predictors of affect, mothers' anticipated behavioural responses were only predicted by mothers' attributions of personal controllability over child
noncompliance. These findings suggest that mothers who fail to perceive their children’s behaviour as within their own control are less likely to respond to child noncompliance. Perhaps mothers who see noncompliance as personally uncontrollable also feel that they can do little to prevent the behaviour from recurring, or feel unable to take control of the situation once the behaviour has occurred. These results suggest that in helping mothers take an active role in coping with child noncompliance, it may be of benefit to assist mothers in modifying their attributions and increase their feelings of self-efficacy in dealing with child behaviours. Indeed, recent research has shown that parenting sense of competence increases in parents of ADHD children as a result of participation in Behavioural Parent Training (BPT) groups (Pisterman, Firestone, McGrath, Goodman, Webster, Mallory, & Goffin, 1992). The detected relationship between personal control and behavioural responses in this study is consistent with previous research linking internal parenting styles to parenting behaviour (Bugental & Shennum, 1984; Murphey & Alexander, 1991), and suggests that mothers’ self-efficacy beliefs surrounding childrearing are most important in determining whether mothers will intervene in parent-child interactions.

A number of relationships were also detected among affect ratings, mothers’ open-ended written descriptions of the cause of children’s behaviour, and the behavioural strategies they would use in response to the behaviour. The strongest attribution-behaviour link was between blaming attributions and greater use
of reprimand strategies. Therefore, although attribution-behaviour links were not detected using mothers' ratings of the likelihood with which they would respond to child behaviours, a relationship was detected between specific behavioural strategies and coded attribution responses. This discrepancy in findings suggests that type of behavioural strategy may in some cases be a more sensitive measure of behaviour than the likelihood of responding at all. Internal, blaming attributions were related to stronger affective ratings, and to greater use of reprimand strategies, supporting the appraisal, emotional activation, behavioural tendency sequence described in Dix's (1991) model. The pattern of attribution-affect correlations for both coded attributions and attribution ratings showed that locating the cause of the behaviour as within the child was related to stronger anticipated affective responses.

**Empathy and Investment in Parenting**

This study examined relationships among perspective taking, empathic concern, and parenting investment as they relate to mothers' attributions and anticipated affective and behavioural responses to child behaviours. There was a trend for mothers' perspective taking scores to be related to less internal and controllable attributions about child behaviour, indicating that the more mothers "put themselves in children's shoes," the less likely they were to see the cause of noncompliant behaviours as within the child, and as under the child's control. This link suggests that thinking about the problem from the child's perspective may elicit what Dix (1991) refers to as "child-
centered" concerns, and less blaming attributions. Given the positive relationship between internal blaming coded attribution responses and use of reprimand strategies, it may be that perspective taking ultimately results in less punitive responses through the effect it exerts on I/C attributions. That is, perspective taking may result in a more thorough consideration of the forces involved in causing child behaviour, and this may in turn generate less blaming attributions, lower affective responses (also detected in this study), and to the adoption of more "child-centered" behavioural tendencies. Together, these findings suggest that the relationships noted in previous research between parent empathy and favourable parent characteristics such as lower parent aggressiveness (Miller & Eisenberg, 1988) and greater parent self-control (Feshbach, 1987) may reflect an association between perspective taking and use of less blaming attributions in explaining children's behaviour. It is possible that the beneficial effect parent empathy exerts on child outcome variables, such as the development of self-control (Feshbach, 1987; Pulkinen, 1982), may also reflect the impact that empathy has on attributions, affect, and parents' use of child-centered child-rearing.

Because the reliability of the empathic concern scale was low, results using this variable need to be interpreted with caution. However, the negative trend between empathic concern scores and anticipated behavioural responses suggests that higher feelings of sympathy and concern are associated with a decreased drive to act on children's noncompliant behaviours. The positive
trend between empathic concern and mother controllability suggests that mothers who had greater feelings of self-efficacy in their interactions with children sympathize more with children's experiences.

There was a trend for parenting investment to be related to lower internality and controllability (I/C) attributions for child behaviour, and to higher affective and behavioural anticipated response ratings. The negative association between parenting investment and child I/C attributions is in accord with the proposal made earlier that the more invested parents are in their role as parents, the greater personal relevance their children's behaviour holds for themselves, and the greater tendency they may have of using positive attributional biases in explaining their children's behaviour. The relationship between parenting investment and anticipated affective and behavioural responses may reflect the association between parenting investment and the hedonic relevance of child behaviours. Given that child behaviours are more important for highly invested parents, they may be more likely to respond affectively, and to do something to prevent noncompliant behaviours from recurring.

It should be noted that because many of the relationships among perspective taking, empathic concern, and parenting investment with mothers' responses to child behaviours were only significant at the .05 level, these findings should be interpreted with caution. The goal of this study was to examine these variables in an exploratory fashion, and further research
is clearly needed to determine the extent to which these findings are generalizable to other situations.

Relationships Among Coded Responses and Ratings

The use of rating scales and open-ended questions in assessing mothers' attributions for child behaviour and anticipated behavioural responses allowed the relationship between the two types of measures to be examined. With regards to mothers' attributions for child behaviours, the significant positive relationships between internal blaming coded attributional responses and both G/S and I/C attribution ratings suggest that written responses were generally consistent with ratings, although the magnitude of these relationships ($r = .28$ and $.23$, respectively) was not overwhelming. Similarly, the negative relationship between external coded responses and I/C attribution ratings is in accord with expectations, though again, not of overwhelming magnitude ($r = -.20$). Although mothers spontaneously described external causes in their written responses, and these coded responses were sensitive to child type, the externality rating failed to load significantly onto either of the child attribution factor scores. Mothers' ratings regarding the likelihood with which they would do something about child behaviours were also related to actual behavioural strategies. As expected, anticipated behavioural response ratings were negatively related to inactive responses and positively related to reprimand strategies. However, although reprimand and talking strategies were affected by behavioural impact across child type, anticipated behavioural responses were
only affected by behavioural impact in the other child condition. Furthermore, although the regression results failed to detect a relationship between mothers' attributions for child behaviour and anticipated behavioural response, coded internal blaming attribution responses were related to reprimand strategies. Together, although the convergence of findings on mothers' attribution and behavioural responses suggests that mothers' responses to ratings and to open ended questions were consistent, the two measure types clearly provide different, but equally valuable information. With regards to attributions, the discrepancy between mothers' responses to rating scales and to open ended questions suggests that the measures may in some cases have been tapping qualitatively different dimensions. For instance, in the case of attributions of externality, the rating scale may not have been as sensitive as mothers' coded written responses. On the other hand, the rating scales provided information about a greater number of attributional dimensions and were more readily quantifiable than coded responses. In addition, past research has reported higher reliability estimates and better construct validity using rating scales than coded open-ended attributions (Russell, McAuley & Tarico, 1987). Together, these findings suggest that inclusion of both measure types is advisable in future attribution research.

A Relationship-focused Approach to Parent-Child Interaction

The detection of child effects supports the proposal that parents may extend positive attributional biases to their own children, with whom they share a close, intimate bond. That is,
parents may not only tend to view their own negative actions as
due to situational factors (while others' negative actions are
seen as due to dispositional causes), but they may also view
their children's negative behaviours as due to situational
factors. Mothers' lower endorsement of globality and stability
attributions for their own children's noncompliance when compared
to those formed about other children support this proposal.
Higher globality and stability attributions suggest that these
behaviours were seen as more stable across situations and time,
implying more dispositional, as opposed to situational factors as
determinants of other child behaviours, and a tendency to view
own child noncompliance as more of a "one shot deal." With
regards to mothers' coded responses, use of more external
attributions with other children and more internal nonblaming
attributions with own children was explained by considering
mothers as balancing their ego-preserving needs and their drive
to use nonblaming strategies with children in general. However,
the unexpected relationship between external causes and other
children suggests that in predicting the extent to which mothers'
extend positive attribution biases to their children, mothers'
own ego-preserving needs may need to be considered. This
relationship could be further tested by using similar stimulus
materials in which mothers are not directly involved in the
situations (e.g., Larrance & Twentyman, 1983). The negative
relationship between parenting investment and I/C attributions
strengthened the proposal that parents' view of their children as
linked to themselves accounts for their extension of positive attributional biases to their children.

The effect of child type on mothers' responses to children supports use of a relationship-focused framework in understanding parent-child interactions. Specifically, mothers' experiences with their own children appear to have a significant impact on the way they see their own and their child's role in causing child behaviours, as well as their affective and behavioural responses to the behaviours. There is, therefore, something unique about the parent-child relationship which distinguishes mothers' responses in interactions with their own and other children. The child type by behavioural impact interactions also suggest that the forces acting on mothers' responses to their own children are not the same as those involved in their interactions with other children. Specifically, the relationship between behavioural impact and mothers' affective and behavioural responses to other, but not their own children's noncompliance, suggests that child noncompliance in mothers' own child interactions may overpower the added influence of behavioural impact.

Limitations and Future Research

Although analogue research is advantageous in its ability to control manipulated variables, the generalizability of research findings to real-life parenting situations is not assured. For instance, in this study, it was not clear whether the failure to detect a behavioural impact effect on mothers' attributions for child behaviour reflected social desirability factors, or whether
behavioural impact simply is not related to mothers' attributions. Future research could simulate real-life situations more closely by having parents recall past incidences in which they were inconvenienced by child behaviours and prompting them to make attributions about the behaviours (e.g., Gretarsson & Gelfand, 1988), or by showing parents videotapes of themselves interacting with their children and assessing their attributions in response to selected child behaviours (e.g., Bugental, 1991).

The findings from this study suggest that mothers' self-efficacy beliefs were a central determinant of anticipated behavioural responses. Given the known links between parent behaviours and the development of child behaviour problems (e.g., Patterson, 1982), results from this study suggest that in helping clinicians assist mothers in taking an active role in coping with child noncompliance, it may be beneficial to identify ways in which these self-efficacy beliefs can be modified. For instance, parents' self confidence surrounding their ability to control their children may be increased by learning ways to spend enjoyable time with their children in which they are "armed" with predetermined strategies to deal with problematic child behaviours (e.g., Pisterman et al., 1992). Finally, the relationships between parent responses and perspective taking, empathic concern, and investment in parenting also provided fruitful avenues for future research. In particular, the relationship between perspective taking and I/C attributions suggests that attributions may mediate the positive impact that
empathy has on parent and child outcome variables. The negative relationship between parenting investment and I/C attributions also suggests that parents' use of a positive bias in attributions for their own children may be related to the extent to which they are invested in their role as parents. However, the exploratory manner in which these variables were investigated in this study precludes any conclusions surrounding the strength or the directionality of these relationships, and future research is clearly warranted.
References


the association for the advancement of behaviour therapy, New York.


Table 1
Factor Loadings of Globality/Stability and Internality/Controllability Factors

<table>
<thead>
<tr>
<th>Attribution Ratings</th>
<th>Globality/Stability</th>
<th>Internality/Controllability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Internality</td>
<td>-.05</td>
<td>.56</td>
</tr>
<tr>
<td>Externality</td>
<td>.13</td>
<td>.11</td>
</tr>
<tr>
<td>Controllability</td>
<td>-.11</td>
<td>.60</td>
</tr>
<tr>
<td>Stability</td>
<td>.53</td>
<td>-.11</td>
</tr>
<tr>
<td>Globality</td>
<td>.53</td>
<td>-.08</td>
</tr>
</tbody>
</table>
### Table 2

**Pearson Correlations Between Coded Attribution Responses and Attribution Ratings for Child**

<table>
<thead>
<tr>
<th>Coded Attribution Responses(^a)</th>
<th>Child Attribution Ratings(^a)</th>
<th>G/S(^c)</th>
<th>I/C(^d)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Internal/Blaming</td>
<td></td>
<td>.28**</td>
<td>.23*</td>
</tr>
<tr>
<td>Internal/Nonblaming</td>
<td></td>
<td>-.14</td>
<td>-.03</td>
</tr>
<tr>
<td>External</td>
<td></td>
<td>-.11</td>
<td>-.20*</td>
</tr>
</tbody>
</table>

\(^a\)Higher ratings indicate greater endorsement of the attributions.

\(^b\)Higher scores indicate endorsement of the attribution in more situations.

\(^c\)G/S = Globality/Stability

\(^d\)I/C = Internality/Controllability.

* \(p < .05\). ** \(p < .01\).
Table 3

Pearson Correlations Between Coded Behavioural Strategies and Anticipated Behavioural Rating

<table>
<thead>
<tr>
<th>Coded Behavioural Strategies</th>
<th>Anticipated Behavioural Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reprimand</td>
<td>.23*</td>
</tr>
<tr>
<td>Shift of Focus</td>
<td>-.13</td>
</tr>
<tr>
<td>Inactive Response</td>
<td>-.37***</td>
</tr>
<tr>
<td>Punishment</td>
<td>.13</td>
</tr>
<tr>
<td>Talk with Child</td>
<td>.11</td>
</tr>
</tbody>
</table>

* p < .05. *** p < .001.
Table 4

Mean Attribution Ratings and Coded Attribution Responses as a Function of Child Type and Behavioural Impact

<table>
<thead>
<tr>
<th></th>
<th>Own</th>
<th></th>
<th>Other</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M</td>
<td>SD</td>
<td>M</td>
<td>SD</td>
</tr>
<tr>
<td>Child</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Child Attribution Ratings(^a) (n=46)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Inconvenience</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Globality/</td>
<td>8.82</td>
<td>3.10</td>
<td>10.33</td>
<td>2.56</td>
</tr>
<tr>
<td>Stability</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Internality/</td>
<td>12.50</td>
<td>2.00</td>
<td>12.35</td>
<td>2.18</td>
</tr>
<tr>
<td>Controllability</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No Inconvenience (n=52)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Globality/</td>
<td>7.97</td>
<td>3.67</td>
<td>9.40</td>
<td>2.95</td>
</tr>
<tr>
<td>Stability</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Internality/</td>
<td>12.20</td>
<td>2.64</td>
<td>12.07</td>
<td>2.69</td>
</tr>
<tr>
<td>Controllability</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Coded Attribution Responses(^b) (n=46)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Inconvenience</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Internal/</td>
<td>1.83</td>
<td>1.27</td>
<td>1.54</td>
<td>1.41</td>
</tr>
<tr>
<td>Blaming</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Internal/</td>
<td>2.74</td>
<td>1.29</td>
<td>1.85</td>
<td>1.43</td>
</tr>
<tr>
<td>Nonblaming</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>External</td>
<td>0.39</td>
<td>0.98</td>
<td>1.54</td>
<td>1.64</td>
</tr>
<tr>
<td>No Inconvenience (n=54)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Internal/</td>
<td>1.63</td>
<td>1.28</td>
<td>1.52</td>
<td>1.33</td>
</tr>
<tr>
<td>Blaming</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Internal</td>
<td>3.06</td>
<td>1.41</td>
<td>1.76</td>
<td>1.47</td>
</tr>
<tr>
<td>Nonblaming</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>External</td>
<td>0.22</td>
<td>0.74</td>
<td>1.26</td>
<td>1.50</td>
</tr>
</tbody>
</table>

\(^a\)Higher ratings indicate greater endorsement of the attributions. Maximum score = 18.00. Minimum score = 0.00.

\(^b\)Higher scores indicate endorsement of the attribution in more situations. Maximum score = 5.00. Minimum score = 0.00.
Table 5

Mean Mother Attribution Ratings as a Function of Child Type and Behavioural Impact

<table>
<thead>
<tr>
<th></th>
<th>Child</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Own</td>
<td>Other</td>
<td></td>
</tr>
<tr>
<td></td>
<td>M</td>
<td>SD</td>
<td>M</td>
</tr>
<tr>
<td>Inconvenience (n = 46)</td>
<td>3.02</td>
<td>1.47</td>
<td>1.92</td>
</tr>
<tr>
<td>Internality</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Controllability</td>
<td>4.70</td>
<td>1.69</td>
<td>2.66</td>
</tr>
<tr>
<td>No Inconvenience (n = 52)</td>
<td>2.68</td>
<td>1.57</td>
<td>1.91</td>
</tr>
<tr>
<td>Internality</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Controllability</td>
<td>5.26</td>
<td>1.62</td>
<td>1.95</td>
</tr>
</tbody>
</table>

Note. Higher ratings indicate greater endorsement of the attribution.

Maximum score = 9.00. Minimum score = 0.00.
Table 6

Mean Anticipated Response Ratings and Coded Anticipated Behaviour as a Function of Child Type and Behavioural Impact

<table>
<thead>
<tr>
<th></th>
<th>Own</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M</td>
<td>SD</td>
</tr>
<tr>
<td><strong>Anticipated Affect and Behaviour Ratings</strong>&lt;sup&gt;a&lt;/sup&gt;</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Inconvenience (n = 46)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Affect</td>
<td>5.23</td>
<td>1.43</td>
</tr>
<tr>
<td>Behaviour</td>
<td>6.15</td>
<td>1.74</td>
</tr>
<tr>
<td>No Inconvenience</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Affect</td>
<td>5.06</td>
<td>1.63</td>
</tr>
<tr>
<td>Behaviour</td>
<td>6.94</td>
<td>1.72</td>
</tr>
<tr>
<td><strong>Coded Behavioural Responses</strong>&lt;sup&gt;b&lt;/sup&gt;</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Inconvenience (n = 46)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Punishment</td>
<td>2.20</td>
<td>1.24</td>
</tr>
<tr>
<td>Inactive Response</td>
<td>.13</td>
<td>.45</td>
</tr>
<tr>
<td>Shift of Focus</td>
<td>.20</td>
<td>.50</td>
</tr>
<tr>
<td>Talk</td>
<td>1.57</td>
<td>1.31</td>
</tr>
<tr>
<td>Reprimand</td>
<td>.46</td>
<td>.75</td>
</tr>
<tr>
<td>No Inconvenience (n = 54)</td>
<td></td>
<td></td>
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<tr>
<td>Punishment</td>
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<td>1.42</td>
</tr>
<tr>
<td>Inactive Response</td>
<td>.13</td>
<td>.39</td>
</tr>
<tr>
<td>Shift of Focus</td>
<td>.39</td>
<td>.71</td>
</tr>
<tr>
<td>Talk</td>
<td>1.22</td>
<td>1.11</td>
</tr>
<tr>
<td>Reprimand</td>
<td>.35</td>
<td>.85</td>
</tr>
</tbody>
</table>

<sup>a</sup>Higher ratings indicate greater anticipated affective and behavioural responses. Maximum score = 9.00. Minimum score = 0.00.

<sup>b</sup>Higher scores indicate endorsement of the behavioural strategy in more situations. Maximum score = 5.00. Minimum score = 0.00.
Table 7
Regression Analyses for Anticipated Affect and Behavioural Responses

<table>
<thead>
<tr>
<th>Variable</th>
<th>Affect</th>
<th>Behaviour</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>r</td>
<td>b incremental</td>
</tr>
<tr>
<td>Child Age</td>
<td>-.04</td>
<td>-.08</td>
</tr>
<tr>
<td>Situation Inconvenience</td>
<td>-.28</td>
<td>-.25**</td>
</tr>
<tr>
<td>G/S</td>
<td>.27</td>
<td>.10</td>
</tr>
<tr>
<td>I/C</td>
<td>.27</td>
<td>.28**</td>
</tr>
<tr>
<td>Mother Internality</td>
<td>.31</td>
<td>.28**</td>
</tr>
<tr>
<td>Mother Controllability</td>
<td>.22</td>
<td>.12</td>
</tr>
</tbody>
</table>

Total $R^2 = .29^{***}$          Total $R^2 = .18^{**}$

G/S = Child Globality/Stability;  I/C = Child Internality/Controllability.

* $p < .05$.  ** $p < .01$.  *** $p < .001$. 
Table 8

Correlations Among Anticipated Affect Ratings, Coded Attributions for Child Behaviour, and Coded Anticipated Behavioural Responses

<table>
<thead>
<tr>
<th>Anticipated Affect Rating</th>
<th>Coded Attributions</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Internal/Blaming</td>
</tr>
<tr>
<td><strong>Behavioural Strategy</strong></td>
<td></td>
</tr>
<tr>
<td>Talking</td>
<td>-.06</td>
</tr>
<tr>
<td>Punishment</td>
<td>.11</td>
</tr>
<tr>
<td>Inactive Response</td>
<td>-.18*</td>
</tr>
<tr>
<td>Shift of Focus</td>
<td>-.07</td>
</tr>
<tr>
<td>Reprimand</td>
<td>.28**</td>
</tr>
<tr>
<td><strong>Attributions</strong></td>
<td></td>
</tr>
<tr>
<td>Internal/Blaming</td>
<td>.29**</td>
</tr>
<tr>
<td>Internal/Nonblaming</td>
<td>.25**</td>
</tr>
<tr>
<td>External</td>
<td>-.02</td>
</tr>
</tbody>
</table>

* p < .05. ** p < .01. *** p < .001.
Table 9
Correlations Between Mothers' Attributions and Anticipated Affective and Behavioural Responses with Empathy and Parenting Investment Subscales

<table>
<thead>
<tr>
<th></th>
<th>Empathy</th>
<th>Parenting Role</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Perspective Taking</td>
<td>Empathic Concern</td>
</tr>
<tr>
<td>G/S</td>
<td>-.09</td>
<td>-.05</td>
</tr>
<tr>
<td>I/C</td>
<td>-.23*</td>
<td>.05</td>
</tr>
<tr>
<td>Mother Internality</td>
<td>-.07</td>
<td>.16</td>
</tr>
<tr>
<td>Mother Controllability</td>
<td>.01</td>
<td>.23*</td>
</tr>
<tr>
<td>Affective Rating</td>
<td>-.30**</td>
<td>.03</td>
</tr>
<tr>
<td>Behavioural Rating</td>
<td>.05</td>
<td>-.17*</td>
</tr>
</tbody>
</table>

**Note.** Higher values indicate higher scores on the measures.
* p < .05.  ** p < .01.
This questionnaire is part of a research project being conducted by graduate student Josie Geller and Dr. Charlotte Johnston in the Psychology Department at the University of British Columbia. We are interested in how parents explain things their own children do and things that other children of the same age and gender do. Findings from this project will better our understanding of how parents think about children's behaviour and how this relates to particular parenting behaviour.

We recommend that you choose a quiet time to complete the forms (e.g. after your child(ren)'s bedtime). There are four sections to the questionnaire. The first asks you to provide some general information about yourself and your child. The second section asks you to respond to eight descriptions of situations involving yourself and a child. For half of the descriptions, we would like you to imagine that the child in the situations is ____________, and in the other half a child you don't know but who is the same age and gender as ____________. After reading each description you are asked to indicate why the behaviour occurred and how you would react. The third section of the questionnaire consists of a series of questionnaires about yourself, and finally, the last section asks you to describe ____________. More detailed directions will be provided at the beginning of each section.

We would appreciate it if you could complete the questionnaires and return the packet as soon as possible. The questionnaires should take about 45 minutes to complete.

You are free to withdraw from the study at any time. If the completed questionnaires are returned to UBC, then it will be assumed that you have consented to participate. Your responses to the questions will be treated as confidential. The external envelope we receive from you will be discarded and your package will be identified by subject number only. Your participation in the project is strictly voluntary.

Thank you for expressing an interest in this study. If you have any comments or questions regarding the project, please call Josie Geller at 689-9974.
GENERAL INFORMATION SHEET

1. Mother's Age: _____
   2. Mother's Occupation: ________________________

3. Highest level of education received for mother: ________________________

4. Mother's ethnic background: ________________________

5. Father's Occupation: ________________________

6. Highest level of education received for father: ________________________

7. Please check the situation that best describes your family:
   a) ____ Two parent family
   b) ____ One parent family
   c) ____ Step-family
   d) ____ Other. Please describe _______________________________________________________________________

8. Please provide the following information about each of your children:

   CHILD  GENDER  ARE YOU THE CHILD'S BIOLOGICAL MOTHER?
   AGE    (M/F):                      
   ______  ______   ______
   ______  ______   ______
   ______  ______   ______
   ______  ______   ______

9a. Have you ever sought psychological help for personal problems?  Y  N
   9b. If yes, please describe briefly:
       ______________________________________________________________________________________

10a. Have you ever sought psychological help for child behaviour problems?  Y  N
    10b. If yes, please identify which child and describe briefly:
        _____________________________________________________________________________________
Appendix C

INSTRUCTIONS FOR RATINGS

We would like you to read a series of scenarios describing problem child behaviours and answer questions about each of them. For each situation involving your own child, please try to imagine that the situation happened to ___________. For situations that do not involve your own child, please imagine that the situation happened with "Johnny," a child you have never met but who is the same age and gender as ___________. Try to imagine each situation as an entirely separate event, and not to let your ratings for one situation influence ratings on subsequent situations.

For each situation, you will first be asked to describe what you think caused the child's behaviour. Then, you will be asked to answer specific questions about the cause of the behaviour. In seeking explanations for the behaviour of others, people often make judgements along the following dimensions:

1. The extent to which the behaviour is caused by something about the child.
2. The extent to which the child has control over the behaviour.
3. The extent to which the behaviour is caused by factors which are present every time the situation arises.
4. The extent to which the behaviour is caused by factors that will be present in the future.

In addition, you will be asked to rate how intense your response would be to each situation, how likely you would be to respond to each situation, and what you would do, if anything, if the situation actually happened.

You may find it difficult to make these ratings. Remember, there are no right or wrong answers, just go with your first impression.

INSTRUCTIONS FOR RATINGS

Please try to vividly imagine yourself in the situations that follow. Although some of the situations may not be typical of your experiences with your child or other children, please stretch your imagination and try to put yourself in each situation. For each situation, describe why you think the child failed to do as he/she was told, and answer the questions about what you think would have caused the child to behave in that way. Finally, rate your reaction to the situation, and describe what you would do in each circumstance.
You are riding on the city bus, and the child sitting next to you is holding a can of pop and begins to play with the metal ring that opens the can. You ask him not to do it. A minute later you hear the "pfft" sound of the can being opened and you notice that the pop has overflowed and some has spilt on your suede shoes.

(1) What do you think is the main reason the child did not do as you asked?

(2) To what extent was the child's behaviour caused by something about the child?

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<thead>
<tr>
<th>0</th>
<th>1</th>
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<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not at all due to the child</td>
<td>Completely due to the child</td>
<td></td>
<td></td>
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</table>

(3) To what extent was the cause of the child's behaviour something about the external circumstances or the situation?

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<tbody>
<tr>
<td>Not at all due to external circumstances</td>
<td>Completely due to external circumstances</td>
<td></td>
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(4) To what extent was the child's behaviour something that was within his control?

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<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not at all under child's control</td>
<td>Completely under child's control</td>
<td></td>
<td></td>
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<td></td>
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</table>

(5) To what extent was the cause of the child's behaviour something that is lasting vs. a one-time thing?

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<th>7</th>
<th>8</th>
<th>9</th>
</tr>
</thead>
<tbody>
<tr>
<td>A one-time thing</td>
<td>Lasting</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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</table>

(6) To what extent was the cause of the child's behaviour something that will influence his behaviour in other circumstances?

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<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
</tr>
</thead>
<tbody>
<tr>
<td>Influences just this particular situation</td>
<td>Influences most situations</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
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</table>

(7) To what extent would you be upset by the child's behaviour?

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<tr>
<th>0</th>
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<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not at all upset</td>
<td>Extremely upset</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

(8) To what extent was the cause of the child's behaviour something about yourself?

<table>
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<tr>
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<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not at all due to me</td>
<td>Completely due to me</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

(9) To what extent was the child's behaviour something that was within your control?

<table>
<thead>
<tr>
<th>0</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not at all under my control</td>
<td>Completely under my control</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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</tbody>
</table>

(10) If this situation actually happened, to what extent would you be likely to do something about the child's behaviour?

<table>
<thead>
<tr>
<th>0</th>
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<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not at all likely</td>
<td>Extremely likely</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

(11) If this situation actually happened, what, if anything, would you do?
The next set of questions ask about your thoughts surrounding children. Please read each statement carefully and decide whether you agree or disagree with it. Indicate how much you agree or disagree with each statement according to the following scale:

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>1</th>
<th>1</th>
<th>1</th>
<th>1</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Strongly Agree</td>
<td>Agree</td>
<td>Neutral</td>
<td>Slightly Disagree</td>
<td>Slightly Agree</td>
</tr>
<tr>
<td>2</td>
<td>Strongly Agree</td>
<td>Agree</td>
<td>Neutral</td>
<td>Slightly Disagree</td>
<td>Slightly Agree</td>
</tr>
<tr>
<td>3</td>
<td>Strongly Agree</td>
<td>Agree</td>
<td>Neutral</td>
<td>Slightly Disagree</td>
<td>Slightly Agree</td>
</tr>
<tr>
<td>4</td>
<td>Strongly Agree</td>
<td>Agree</td>
<td>Neutral</td>
<td>Slightly Disagree</td>
<td>Slightly Agree</td>
</tr>
<tr>
<td>5</td>
<td>Strongly Agree</td>
<td>Agree</td>
<td>Neutral</td>
<td>Slightly Disagree</td>
<td>Slightly Agree</td>
</tr>
<tr>
<td>6</td>
<td>Strongly Agree</td>
<td>Agree</td>
<td>Neutral</td>
<td>Slightly Disagree</td>
<td>Slightly Agree</td>
</tr>
<tr>
<td>7</td>
<td>Strongly Agree</td>
<td>Agree</td>
<td>Neutral</td>
<td>Slightly Disagree</td>
<td>Slightly Agree</td>
</tr>
<tr>
<td>8</td>
<td>Strongly Agree</td>
<td>Agree</td>
<td>Neutral</td>
<td>Slightly Disagree</td>
<td>Slightly Agree</td>
</tr>
<tr>
<td>9</td>
<td>Strongly Agree</td>
<td>Agree</td>
<td>Neutral</td>
<td>Slightly Disagree</td>
<td>Slightly Agree</td>
</tr>
<tr>
<td>10</td>
<td>Strongly Agree</td>
<td>Agree</td>
<td>Neutral</td>
<td>Slightly Disagree</td>
<td>Slightly Agree</td>
</tr>
<tr>
<td>11</td>
<td>Strongly Agree</td>
<td>Agree</td>
<td>Neutral</td>
<td>Slightly Disagree</td>
<td>Slightly Agree</td>
</tr>
<tr>
<td>12</td>
<td>Strongly Agree</td>
<td>Agree</td>
<td>Neutral</td>
<td>Slightly Disagree</td>
<td>Slightly Agree</td>
</tr>
<tr>
<td>13</td>
<td>Strongly Agree</td>
<td>Agree</td>
<td>Neutral</td>
<td>Slightly Disagree</td>
<td>Slightly Agree</td>
</tr>
<tr>
<td>14</td>
<td>Strongly Agree</td>
<td>Agree</td>
<td>Neutral</td>
<td>Slightly Disagree</td>
<td>Slightly Agree</td>
</tr>
</tbody>
</table>

1. I sometimes find it difficult to see things from a child's point of view.
2. I try to look at children's side of a disagreement before making a decision.
3. I sometimes try to understand children better by imagining how things look from their point of view.
4. If I'm sure I'm right about something involving my children, I don't waste much time listening to children's arguments.
5. I believe that there are two sides to every question and try to look at them both.
6. When I'm upset with a child, I usually "put myself in his or her shoes" for a while.
7. Before criticizing a child, I try to imagine how I would feel if I were in his or her place.
8. I often have tender, concerned feelings for people less fortunate than me.
9. In emergency situations, I feel worried and ill-at-ease.
10. When I see someone being taken advantage of, I feel kind of protective toward them.
11. Other people's misfortunes do not usually bother me a lot.
12. When I see someone being treated unfairly, I sometimes don't feel much pity for them.
13. I am often very touched by things I see happen.
14. I would describe myself as a pretty soft-hearted person.
The next set of questionnaires ask about your feelings and thoughts surrounding parenting. Please read each statement carefully and decide whether you agree or disagree with it. Indicate how much you agree or disagree with each statement according to the following scale:

1. Strongly Agree
2. Agree
3. Neutral
4. Slightly Disagree
5. Disagree

1. My children are my greatest source of pride.
2. It is very important to me that my children feel close to me.
3. When I do something which makes my children happy, I am happy.
4. Being a parent makes me feel important.
5. No matter where I am or what I am doing, I think of my children at least every couple of hours.
6. My children will accomplish more than I did.
7. Being a parent is something I want to be good at.
8. Being a parent is my greatest responsibility.