

Flexibility of Parents' Attitudes Toward Independence  
in Children

by  
Penny Cole

A Thesis

Submitted to the Faculty of Graduate Studies  
through the Department of Family Studies  
in Partial Fulfillment of the Requirements  
for the Degree of Master of Science at the  
University of Manitoba  
Winnipeg, Manitoba, Canada

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#### PSYCHOLOGIE

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FLEXIBILITY OF PARENTS' ATTITUDES TOWARD  
INDEPENDENCE IN CHILDREN

BY

PENNY COLE

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

MASTER OF SCIENCE

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## ABSTRACT

The flexibility of maternal attitudes and bidirectionality of the parent-child relationship are discussed, it is suggested that maternal attitudes are flexible, and findings are described indicating mothers' attitude change in response to their children's independent behaviour. It is postulated that change in mothers' attitude toward independence in children depends on the degree of dissonance between mothers' attitude and her child's behaviour, the intensity of mothers' initial attitude toward independence in children, and the consistency of the mothers' perception of her child's independent behaviour. The subjects are 29 mothers of children (aged 1- to 4 years) attending the Child Development Centre at the University of Manitoba for two consecutive years. This study reports mothers' responses on the Parental Attitude Research Instrument, the Fosters Dependence Scale, and the Dimensions of Mastery Questionnaire, the Independence Mastery Scale, on two consecutive years. Change in mothers' attitudes toward independence in children is most likely to occur when dissonance exists between mothers' attitude and her child's behaviour. Neither intensity of mothers' attitudes, nor consistency of child behaviour, are significantly related to maternal attitude change.

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## INTRODUCTION

### From Behaviour to Cognition: History of Parent- Child Research

Over the past decade, the focus of parent-child research has shifted from overt behavior to cognitive processes and information-processing (Sigel, 1985). During the 1960s and 1970s, researchers tended to ignore the importance of parents' cognitions, attitudes and values in their relationships with children (Bacon & Ashmore, 1986; McGillicuddy-Delisi, 1985) and to view parent-child interaction as a stimulus-response chain. Therefore, much of the early literature in this area was behaviourally descriptive but neglected the covert aspects of the parent-child relationship.

During the 1980s, researchers began to investigate the role of cognition in parent-child interaction (Bates & Bayles, 1984; Goodnow, 1988). These studies demonstrated that individuals use the information they acquire to interpret, define and evaluate what is going on around them. For example, overt parental encouragement or other concrete behaviour is not required to inform a child of parents' expectations

(Sigel, 1985). A history of attitudes and expectations between parent and child can influence a child's abilities indirectly (Hess & McDivitt, 1986; McGillicuddy-Delisi, 1985). Parents' attitudes toward and expectations of their children and their own parental roles are often implicit, that is, they are rarely directly verbalized as expectations to children. For example, a mother speaking to her four-year-old daughter is not likely to say, "Mary, I expect you to be independent and make an attempt to solve your own problems before you ask for help." However she may ask her to try again and then help her once she has tried.

Research suggests that parents' ideas, attitudes and expectations are, in part, learned in their families of origin (McGillicuddy-Delisi, 1982). These cognitive structures are internal representations of reality that enable individuals to anticipate situations and choose courses of action.

Bowlby (1969, 1973, 1980) borrowed the term "internal working model" (IWM: Craik, 1943) to explain the dynamic representations that develop in childhood in reaction to the attachment relationship with the primary caregivers. IWMs of oneself and the attachment

figure(s) assist in predicting and interpreting the other's behaviour and one's own response. In the following section, the concept of IWM will be elaborated and the development of cognitive models will be described.

#### Internal Working Models and Their Development

IWMs are defined as mental representations that include affective and cognitive components and are formed out of generalized event representations (Bretherton, 1985). These generalizations are based on events perceived subjectively and influence the perception of future events. They are "abstract averages" (Zeanah & Anders, 1987) of many similar events that provide rules for behaviour that allow for affective appraisals of experience and rules for the direction and organization of attention and memory. IWMs develop within the context of one's relationship with others, beginning with the parent-child relationship. They guide the perception and interpretation of experiences in all primary relationships and provide some predictability and order to social interaction. Learning through interactions

with others involves analysis, interpretation, reaching conclusions and developing expectations. While their effects on behaviour are not always readily accessible to consciousness, fulfilled expectations and the development of attitudes and rules preserve order within complex systems of interaction.

IWMs begin to develop at birth (Bretherton, 1988; Zeanah & Anders, 1987) and by the third quarter of the first year, children's developing expectations about parents' accessibility and responsiveness become organized into IWMs of their world. By the end of the first year, children have some understanding of how to influence their parents' behaviour and begin to negotiate and compromise. As their experience continues, children form broader perceptions of the world. An individual's unique personal history, then, leads to the development of an IWM that gives rise to subjective interpretation of objective information, anticipation of events, generation of predictions and choice of action (Higgins, King & Mavin, 1982).

IWMs have been studied extensively in terms of the early parent-child relationship (Bretherton, 1988; Crowell & Feldman, 1988; George & Solomon, 1989; Main,

1983; Zeanah & Anders, 1987). Throughout this literature, the idea pervades that parents unilaterally affect children's cognitive models. The importance of parents' influence on children's attitudes, feelings, expectations, behaviours and personality have been strongly emphasized (Sroufe, Fox & Pancake, 1983). It has been suggested that, if parents consistently behave in a particular way toward their child, the child will develop a corresponding IWM of self and of the parents (Schneider, 1991). For example, it has been suggested that if a child experiences deprivation or rejection by a parent, the resulting IWMs will be of the parent as rejecting and of the self as unlovable (Bowlby, 1973). A child whose parents are available and emotionally supportive will develop an IWM of self as competent and worthy of love. The child's sense of self, therefore, has been seen as based primarily on the parents' availability and responsiveness (Ainsworth, Blahar, Waters & Wall, 1978).

Traditionally, parent-child interaction research has focused on this unidirectional effect of parents on children (Ambert, 1992). Parental behaviour has been implicated as the primary factor determining children's



behaviour (Osofsky, 1971), adjustment (Peterson & Rollins, 1987), well-being and development (Dunn & Plomin, 1990). Moreover, it has often been assumed that children's IWMS remain stable into adulthood, unaffected by later experiences (Bretherton, 1990; Feeney & Noller, 1990). It has been suggested that infants are relatively passive recipients of their parents' IWMS (Zeanah & Anders, 1987). According to some, the parent's responsiveness to the child is more influential in setting the tone of the relationship than are the child's characteristics, such as temperament (Bretherton, 1988).

There is some research evidence to support this assumption. For example, it has been found that mothers' perceptions of their newborns are based more on their own characteristics than on those of their infants (Broussard, 1979) and that they respond to their infants according to their own affect (Kaye, 1980). Parents have been found to hold preconceived expectations or IWMS of their unborn infants (Zeanah, Keener, Stewart & Anders, 1985) that are maintained for six months postnatally (Zeanah, Keener & Anders, 1986a, 1986b). Adolescent mothers' ratings of their

unborn babies' temperaments have been found to remain relatively stable for four months postnatally (Zeanah, Keener, Anders & Viera-Baker, 1987). When Zeanah et al. (1987) found that anxious mothers' infants were difficult and unresponsive, they concluded that the infants' unresponsive behaviour developed as a result of the mothers' perceptions of the children. However, this research neglects to consider the influence of the infants on their mothers.

Longitudinal work by Thomas and Chess (1977) and Chess and Thomas (1984) has demonstrated that children's temperamental characteristics interact with environmental variables and influence the dynamics of parent-child relationships. They found that "goodness" or "poorness of fit" between parent and child was determined by the consonance or dissonance of parents' expectations or demands and the child's temperament. Poorness of fit is exemplified when demands for change and adaptation are dissonant and discrepant from the child's capacities, resulting in distorted development and possible maladaptive functioning. Goodness of fit results when parents' expectations and demands are in accord with the child's capacities, characteristics and

style of behaving and promote optimal development (Thomas & Chess, 1977).

It appears, then, that the parent-child relationship is influenced by the interaction between parents' expectations and the child's individual characteristics such as temperament. Studies considering this interactional effect are explored further.

#### Bi-Directionality of Effects in Parent-Child Interaction

The work of Chess and Thomas spawned a body of research on temperament and goodness of fit in the parent-child relationship. It appears that children, as well as parents, have an influence on the quality of the parent-child relationship. For example, children's temperament has been found to predict maternal stress (Hagekull & Bohlin, 1990), to predict the attachment security of the child when maternal personality is considered (Mangelsdorf, Gunner, Kestenbaum, Lang, et al., 1990), and to affect parental responses when the child's behaviour is dissonant with parents' values and expectations (Chess & Thomas, 1977). These studies

have demonstrated the existence and importance of reciprocity in the parent-child relationship (Ashmore & Brodzinsky, 1988; Bradbury & Fincham, 1990; George & Solomon, 1989).

Further research has suggested that it is the overall degree of difficulty the infant presents for an average mother that defines easy versus difficult temperament (Hubert & Wachs, 1985). The presence of a handicap in a child also appears to affect a mother's responsiveness. For example, Crowell and Feldman (1988) found that mothers of delayed children are less supportive and helpful with their children than are mothers of developmentally intact children.

Quality of attachment has often been considered a result of parental responsiveness (Frankel & Bates, 1990; Schneider, 1991). However, the child's characteristics may actually interact with the parent's particular style of parenting to determine quality of attachment. It has been argued that infants who appear to be insecurely attached because they react strongly to maternal separation and reunion may be temperamentally prone to distress (Kagan, 1982). A temperamentally calm baby may display less emotional

upset in the same situation. Findings of research on physical and physiological changes in babies under conditions of uncertainty suggest that there is a subgroup of "hyperarousable" infants (Kagan, Reznick & Snidman, 1987) who are very difficult to soothe. Such hyperarousal can be highly aversive to parents and their responsiveness and sensitivity may be reduced (Kagan, Reznick, Clarke, Snidman & Garcia-Coll, 1984). "Difficult" or "hyperarousable" children tend to remain resistant to their mothers' efforts to control them throughout the period of infancy (Lee & Bates, 1985). Mothers of resistant babies tend to develop power assertive discipline strategies (Lee & Bates, 1985) and their children tend to display insecure attachment patterns (Miyake, Chen & Campos, 1985; Waters, Vaughn & Edgeland, 1980). Indeed, the 'goodness of fit' between infants' temperaments and those of their parents has been found to be an important factor influencing their interaction (Buss & Plomin, 1984).

Bell and Chapman (1986) demonstrated reciprocity in the development of parenting strategies. They have found that parent and child set limits and regulate each other through upper limit (reducing, redirecting)

or lower limit (priming, stimulating) controls. If, for example, the lower limit of a parent's tolerance is reached by a child's lack of interest in the environment, the parent may react by directing the child's attention to stimuli that will increase interest in the environment. If, on the other hand, the parent's upper level of tolerance is reached by the child becoming too rambunctious, the parent will react in some way to calm the child down. As well, the child's upper or lower level of tolerance may be reached when the parent is too stimulating (e.g. too much physical bouncing) or not stimulating enough (e.g. no eye contact or touching). The child may react by crying for either more or less attention. An interaction, then, stimulates mutually influential behavioural and cognitive responses in both parent and child (Bell, 1979).

The studies cited above have focused on the child's effect on the parent's behaviour. However, studies have also demonstrated that the child's characteristics influence the parent's cognitions. For example, Bugental, Blue and Cruzcosa (1989) found that mothers' reactions to children's behaviour were based both on

their caregiving schemas (IWMS) and on the "eliciting characteristics" (temperament) of the children. In this study, each mother was asked to interact with a child whose temperament was rated in terms of "difficulty". Following the interaction, each mother completed a questionnaire measuring the degree of annoyance she experienced during the interaction as well as her perception of the child's behaviour. It was found that mothers with low perceived control over caregiving failures reported significantly greater annoyance (i.e., they were less pleased) with "difficult" children than with "easy" children. Mothers responded in a coercive or abusive manner when they perceived themselves as being at a power disadvantage relative to the child - that is, when they perceived the child with a "difficult" temperament as a problem and themselves as helpless victims. This finding was consistent whether the subjects were the children's mothers or strangers who did not have past experience with the children.

It appears, then, that some mothers' IWMS lead them to perceive "difficult" children as a threat to their perceived controllability of caregiving outcomes.

It also appears that mothers' IWMs are influenced by children's behaviour. The flexibility and adaptability of mothers' IWMs becomes an important issue because of the role the IWM plays in mothers' perception and reaction to their children. In the following section, the literature related to flexibility of parents' IWMs and the factors affecting them will be reviewed.

#### Flexibility of Internal Working Models

In the term IWM, "working" refers to the model's dynamic aspects of representation and 'model' implies construction and development of complexity. IWMs are considered dynamic because they help predict and interpret one's partner's behaviour and one's own response. Given this dynamism, IWMs should be fluid and amenable to change when confronted with outdated, faulty, or inconsistent information. A well-organized IWM is coherent across hierarchical levels of cognition enhancing clarity of thought and communication with others.

IWMs are global representations that may or may not "fit" with specific events that occur. A prototype or standard is exemplified in the expected degree of



fit between a specific event and a global representation. For example, if a parent believes that children should be "seen and not heard" (global representation), and experiences a particular child as very verbal in social situations (specific event), the lack of fit between the global representation and the specific event will cause cognitive dissonance (Crocker, Fiske & Taylor, 1984). It is suggested that the intensity of such dissonance will be determined by the degree of 'goodness of fit' between the two (Zusne, 1986). Zusne (1986) suggests that the dissonance creates a need for one to regain cognitive consonance and leads to goal-seeking behaviour to remove the need, alleviate the irritation, and regain a state of physiological homeostasis or cognitive consonance.

Bretherton (1985) suggests that IWMS tend to resist major change. Individuals have a need to maintain a particular organization of information to preserve their IWMS of their children, themselves and their relationships. In this way they can feel comfortable with a familiar set of rules (Main, Kaplan & Cassidy, 1985). Similarly, the theory of cognitive dissonance suggests that schemata (global

representations) are based on rules resistant to change and that this resistance is logically necessary in order to maintain organization. This organization produces a comfortable state referred to variously as equilibrium (Piaget, 1970), cognitive consistency (i.e. absence of cognitive dissonance) (Festinger, 1957), or homeostasis (Zusne, 1986). The common element within each of these concepts is the familiarity, coherence and predictability of cognitions resisting the discomfort of the unknown.

Cognitive dissonance may occur when inconsistency exists between a cognition and another more generally encompassing cognition (e.g., when expectations are disconfirmed). According to cognitive dissonance theory, dissonance is an aversive state which motivates one to identify a rule to which the anomaly may be assimilated in order to reduce it to a comfortable state. While dissonance is caused by the violation of an internalized rule, dissonance reduction is an attempt to justify the anomaly. This may be achieved by various cognitive means. The ways of altering dissonance involve changing the content or intensity of one's belief, or distorting the incoming information

(Totman, 1973). A parent's IWMs may be challenged by new information received as a result of developmental and other changes in the child. The resulting dissonance may lead the parent to adopt the new information into the current IWM or to remain rigid in attitude and to distort or deny the new information.

There is some research supporting the assumption of continuity of parents' IWMs (Roberts, Block & Block, 1981). However, while some studies have found that parents do not alter their beliefs even when given conclusive data negating them (Sigel, 1985), just as many have found that they do (Miller, 1988). For example, in a study examining parents' failed predictions and subsequent expectations of their childrens' school performance (grade 1-3), Entwisle and Hayduk (1981) found varied reactions. Some parents scaled down their expectations, some maintained them and ignored the report card and some changed their views of the capabilities of the other children in comparison to their own. These results suggest that parents vary in the flexibility of their IWMs. Zeanah and Anders (1987) suggest that in relationships that are intense and in which interactions are consistently

different from learned expectations, significant reorganization of parents' IWMs can occur. In the event that a change in the parent's IWMs does take place, it is likely that a lack of fit between current interchanges and one's IWM has become so great (i.e., attitude-behaviour dissonance) that the IWM is no longer helpful. For example, if a parent who believes that children should be "seen and not heard" has a verbally expressive child, the parent's attitude may eventually change in order to accommodate this discrepant information if it is consistent, predictable and valued.

Exceptions to one's IWM may be maintained in one's awareness; if further evidence is received that lends more credence to the exception than to the original attitude, the IWM may be modified. Bowlby himself (1963) referred to "corrective partnerships," which states that the parent-child relationship involves reciprocal influence between behaviours, beliefs and ideas. Depending on the parent's need to maintain a particular organization of information, the parent's IWM will be more or less rigid. If rigid, experiences and feelings are not integrated, thereby restricting

input of information resulting in a less coherent IWM (Main, Kaplan & Cassidy, 1985) and contributing to difficulty in responding appropriately to incoming information. Those with adaptable IWMs tend to be most free of rule-bound attitudes and most adaptable to new situations (George & Solomon, 1989; Main, Kaplan & Cassidy, 1985).

A mother's need to maintain a particular organization of information, and hence the stability (i.e., degree of change) of the mother's attitude, appears to be closely related to three factors: the degree of dissonance between maternal attitude and child behaviour, the intensity of the mother's initial attitude, and the consistency of the child's perceived behaviour across time and /or situation.

Attitude-Behaviour Dissonance. The more divergent the behaviour is from what the parent expects, the more likely the parent is to make a cognitive shift (Crocker, Fiske & Taylor, 1984) in order to maintain coherence. In Piagetian terms, the degree of divergence between the child's behaviour and the parent's attitude will determine whether the discrepant

information is assimilated into the current IWM or accommodated by a new IWM.

According to Goodnow (1988), the ideas least likely to change are those that identify a parent's definition of self as a parent, especially those linked to prototypes of a "good parent" or a "good child". For this reason, parents have been termed "developmental optimists" (Knight, 1985). Knight (1985) found a correlation between parents' degree of satisfaction with their children's behaviour and their ratings of that behaviour's stability. If parents are satisfied, they expect stability; if dissatisfied, they expect change. Similarly, qualities seen by parents as desirable (e.g., friendly, catches on quickly, talks nicely) are regarded as likely to be stable. Behaviours seen as undesirable (e.g., easily upset, rude, cries) are expected to change (Goodnow & Collins, 1990). Goodnow & Collins (1990) presumed that unrealistic goals of parents may precipitate disappointments and poor relationships.

Parents have attitudes toward and expectations of children that will be met to varying degrees by their own children. Dissonant information can be classified

as similar to, moderately dissonant with or extremely dissonant with current schemas. It has been suggested that degree of dissonance is related to schematic (IWM) change in a curvilinear fashion (Hastie & Kumar, 1979). Information that is very similar to one's expectations is assimilated into one's current IWM. Resolution of moderate dissonance requires more thought as the information is assimilated into the IWM or as the IWM is adjusted through accommodation. In non-parenting situations, information that is extremely dissonant is typically rejected. However, in the case of a parent's judgement of a child, it is less likely that extremely dissonant information will simply be rejected (Crocker, Fiske & Taylor, 1984). Rather, processing will slow as the parent attempts to integrate the information into his or her IWM. Integration becomes increasingly difficult as the magnitude of the dissonance increases. Thus, the greater the dissonance, the more likely is change in the attitude.

Intensity. The likelihood of change occurring in a parent's attitude over time appears to be related to its initial intensity - that is, its strength. The more committed one is to a belief, the less likely one

is to change it (Zimbardo, 1969). As Dix and Grusec (1985) demonstrated, mothers' attitudes toward the importance of doing something about a child's behaviour (i.e. intensity of attitude) are correlated with the level of affect they experience, especially negative affect. They hypothesize that if parents contend that children are increasingly able to control their behaviours as they develop, then children's misconduct will elicit increasingly negative parental affect as the children become older. It may be suggested, then, that the intensity of maternal attitudes is related to the degree of affect experienced. Further, it has been suggested that the intensity of an IWM (e.g., attitudes, affect, etc.) is negatively related to its adaptability (George & Solomon, 1989; Main et al., 1985). In other words, the more intense the attitude and/or affect, the greater the probability of a mother maintaining this attitude.

Strength or intensity of parents' beliefs has been measured when studying their socialization goals (Kagan et al., 1986). Kagan et al. (1986) studied mothers' "depth of commitment" to a belief regarding socialization using a selective recall procedure.



Three childrearing themes were presented: the consequences of too little or too much physical affection, the desirability of dependence or independence from the family, and the effects of too much or too little restrictiveness in the child. Mothers of firstborn 3 year olds listened to essays on these themes and attempted to recall the ideas presented in them. Lower-SES mothers recalled a significantly greater proportion of words from the anti-affection and permissive arguments than did middle-SES mothers. It was concluded that mothers' "depth of commitment" (i.e. intensity) to their stated socialization goals was measurable and distinct.

Consistency versus Ambiguity of Perceived Behaviour. It has been suggested that, when an attitude-behaviour discrepancy exists, the discrepant information must also be unambiguous to produce schematic change (Crocker, Fiske & Taylor, 1984). Ambiguity exists when the behaviour of a child is difficult to categorize, or when a behaviour or class of behaviours occurs inconsistently across situations. Ambiguous discrepant information can be more easily assimilated than unambiguous discrepant information,

because by its very nature it more readily lends itself to distortion. It is expected that when discrepant information occurs consistently (i.e., is not ambiguous), it is more likely to be integrated into an IWM than if it occurs inconsistently.

### The Present Study

From the foregoing review, it can be concluded that the degree of change in mothers' attitudes toward their children's behaviour is influenced by the degree of dissonance between mothers' global attitudes and specific events, intensity of the attitudes, and the consistency of perceived child behaviour. Although these factors are thought to contribute to the degree of change in mothers' attitudes, they have not been analyzed collectively to ascertain their relative predictive values. That is, while each of the factors alone appears to be related to attitude change, it is not known whether they combine additively or interactively in the prediction of the attitude change. The present study, therefore, provides an examination of the relative contributions of attitude-behaviour dissonance, intensity of mothers' attitudes, and

consistency of children's behaviour to the degree of change in mothers' attitudes. Specifically, the contributions of these variables to change in mothers' attitudes toward children's independence are assessed. In the following section, the rationale for the selection of independence will be provided.

#### Parents' Attitudes Toward Children's Independence

Many parents value independence and autonomous functioning in children (Alwin, 1988). In a study of mothers' short- and long-term parenting goals (Richman, Miller & Solomon, 1988), independence was one of the most often-cited and most highly valued goals for their children.

The value that parents place on independence appears early. Parents of children as young as 18 months (Harwood & Miller, 1991) and 25 months (Bretherton et al., 1989) of age view their children's desire to be self-reliant as an important characteristic.

Independence appears to be valued in different ways by different parents. Some value children's interaction with peers, as it indicates that the child

is not too dependent on the mother; others value children's self-care and assistance in the home (Osterwell & Nagano, 1991). Power and Shanks (1989) found that fathers value instrumental independence in their children and perceive themselves as encouraging it more than mothers.

However, parents also indicate a desire for emotional dependence in their children; they attempt to provide an autonomy-fostering secure base and an emotionally supportive safe-haven (Bretherton et al., 1989). Dependence as an emotional attachment is viewed positively, but when perceived as a lack of self-reliance, it is viewed negatively (Sigel, 1985).

This apparent contradiction in parents' beliefs about the value of independence may make it particularly difficult for parents to resolve dissonance between their attitudes and their children's behaviour. This together with its primacy in parents' value systems, makes independence a particularly useful construct in a test of the cognitive model proposed in the present study.

#### Purpose of the Present Study

The purpose of the present study was to investigate the relative contributions of the degree of attitude-behaviour dissonance, intensity of mothers' attitudes, and the consistency of children's behaviour to change in mothers' attitudes toward children's independence over time. Children's behaviour was defined as mothers' perceptions of their children's actual independence. The specific questions addressed in the present study were:

- 1) When a maternal attitude and child behaviour are discrepant, does the degree of dissonance, intensity of attitude, and/or consistency of child behaviour predict the likelihood of change in the maternal attitude?
- 2) Does the intensity of a mother's attitude moderate the effect of dissonance on the degree of change in the maternal attitude?
- 3) Does the consistency of child behaviour moderate the effect of dissonance on the degree of change in the maternal attitude?

### Hypotheses

1. It was expected that attitude-behaviour dissonance, intensity of maternal attitude, and consistency of child behaviour would contribute individually to the degree of change in maternal attitudes toward independence in children. It has been found that the degree of cognitive dissonance experienced by an individual is associated with the probability of his or her making a cognitive shift (Crocker, Fiske & Taylor, 1984). Therefore, it was expected that a positive correlation would be found between the magnitude of the discrepancy between mother's attitude and child's behaviour at Time 1, and the amount of change from Time 1 to Time 2 in the mother's attitude toward child independence.

The intensity of one's IWM has been found to be negatively related to its adaptability (George & Solomon, 1989; Main et al., 1985). Therefore, it was expected that intensity of maternal attitude would be related to change in the maternal attitude. Specifically, it was expected that a negative correlation would be found between intensity of attitude and degree of attitude change.

It has been found that behaviour perceived to be consistent (i.e., unambiguous), is integrated into one's IWM more readily than behaviour that is perceived to be inconsistent (Crocker, Fiske & Taylor, 1984). Therefore, it was expected that consistency of child behaviour would be related to maternal attitude change. Specifically, a positive correlation was expected between consistency of child behaviour and maternal attitude change.

2. It was predicted that the relation between the magnitude of attitude-behaviour dissonance and the degree of attitude change would be moderated by the intensity of the mother's attitude at Time 1. Specifically, given an attitude-behaviour discrepancy of a given size, the likelihood of change in the mother's attitude would increase as its intensity decreased.

3. It was predicted that the relation between the magnitude of attitude-behaviour dissonance and attitude change would also be moderated by the consistency of the child's behaviour. Specifically, given an attitude-behaviour discrepancy of a given size, the likelihood of change in the mother's attitude would

increase as the consistency of the child behaviour increased.



## METHOD

In early March of each year, parents of children attending the University of Manitoba Child Development Centre (CDC) are given a consent form, a letter requesting their participation in research (see Appendix A for an example) and a package of the following questionnaires: the Barnes Vulcano Rationality Test (Barnes & Vulcano, 1982), the Eysenck Personality Questionnaire (Eysenck & Eysenck, 1975), the Emotionality, Activity, Sociability/Shyness Temperament Survey for Children (EAS: Buss & Plomin, 1984), the Dimensions of Mastery Questionnaire (DMQ: Morgan, Maslin & Harmon, 1986) and a short form of the Parental Attitude Research Instrument (PARI: Schluderman & Schluderman, 1977). Questionnaires are completed at home and returned to the CDC. Parents who complete the questionnaires for the first time constitute Wave 1. Parents who complete the questionnaires a second time, as their children have attended the CDC for two or more consecutive years, comprise Wave 2. Data from completed questionnaires that are returned to the CDC are coded and entered into

the core data set. The present study involves a secondary analysis of a portion of the core data set.

### Subjects

The 29 mothers of children who attended the (CDC) for at least two consecutive years during the period from 1986 to 1993, and who agreed to participate in the Centre's annual collection of core data comprise the subject sample. At Wave 1, the ages of the subjects ranged from 25 years to 45 years, with a mean of 34 years. All subjects were married. Their educational levels varied from some high school (7%) to college or university (65%). The majority (83%) were homemakers, while the remainder were employed part-time (7%) or full time (10%). The ages of their children ranged from one year to four years with a mean of two years and two months. Of the children, 16 were female and 13 were male.

### Measures

#### Maternal Attitude Change

Maternal attitude change is defined as the degree of change that occurs in mothers' attitudes toward independence in children. This was measured by the

difference between their scores on the Fosters Dependence scale of the PARI at Time 1 and Time 2.

#### Attitude-Behaviour Dissonance

The discrepancy between mothers' global attitudes toward children's independence and their perceptions of their children's behaviour was quantified as the difference between their scores on the Independent Mastery scale of the DMQ and the Fosters Dependence scale of the PARI at Wave 1. The greater the difference between these scores, the greater the degree of dissonance. The degree of dissonance could potentially vary from '0' (i.e. no apparent dissonance) to '15' (extremely dissonant).

#### Intensity of Maternal Attitudes

The intensity of mothers' attitudes was measured by their Wave 1 responses to the Fosters Dependence scale of the PARI. The items are contained in Appendix B. The original Parental Attitude Research Instrument (PARI; Schaefer & Bell, 1958) was devised to assess parental child-rearing attitudes. The measure was modified to minimize methodological problems (i.e., reduce response set bias), through reverse scoring procedures (PARI Q4; Schluderman & Schluderman, 1977).

The PARI is composed of 23 subscales of 5 items each. For each item, there are four response alternatives: strongly agree, mildly agree, mildly disagree and strongly disagree. In order to reduce the amount of time parents required to complete the core data package, only 6 subscales from the PARI Q4 were included from the revised version, namely Fosters Dependence, Martyrdom, Strictness, Parental Control, Parental Un-involvement and Accelerator of Development.

To examine the validity and reliability of the PARI Q4, Schluderman and Schluderman (1977) had four hundred and twenty-five female college students aged 17 to 22 years (mean age 18.5 years) complete the Mother's form of the PARI Q4 twice over in a one-week interval. It was assumed that variations in the students' child rearing experiences would not systematically affect response set or test-retest reliability. The test-retest reliabilities of the subscales range from .52 to .81. Test-retest reliability has been estimated to be .60 on the Fosters Dependence subscale (Schluderman & Schluderman, 1977). Factor analysis revealed that the factor structure of the reverse-scored scales was maintained.

The PARI Fosters Dependence scale appears to be a valid measure of parents' attitudes toward independence in children and is related to how they rear their children. For example, Fu, Hinkle and Hanna (1986) found a relationship between parental child-rearing attitudes toward dependency and the transmission of these attitudes intergenerationally. Also, lack of promotion of independence, as indicated by parents' responses to the PARI, was related to their children's sociometric ratings by peers (Peery, Jensen & Adams, 1985).

The Fosters Dependence subscale measures parents' attitudes toward fostering independence in children. Ratings are summed to produce a total score that can range from 5 to 20. A higher score reflects a stronger valuation of children's independence and a lower score reflects a stronger valuation of children's dependence.

Intensity of parents' attitudes are indicated by their total score. An intense attitude was defined as a score between 17 and 20 (strong agreement with statements valuing independence) between 5 and 8 (strong disagreement with statements valuing independence). An attitude was considered less intense

with a score between 14 to 16 or between 9 and 10. An attitude was considered least intense given a score between 11 and 13.

#### Perceived Consistency of Child Behaviour

Mothers' Wave 1 responses to the Independent Mastery scale of the DMQ were used to assess their perceptions of their children's actual independence. The DMQ assesses adults' perceptions of children's behaviour during play in four general areas: persistence (5 items), mastery pleasure (6 items), competence (5 items) and independence during challenging play (5 items). The DMQ consists of 4-point Likert-type scales measuring parents' perceptions of their children's mastery motivation (i.e., persistence, pleasure, competence and independence) during play. The scale gives 4 possible responses ranging from 'not at all typical' (1) to 'very typical' (4).

The DMQ appears to provide a valid measure of children's mastery motivation. There are predictable relationships between the scales and behaviour in structured mastery tasks (Fung, 1984; Morgan, Harmon, Pipp, Maslin & Brockman, 1984; Morgan et al., 1986).

Yarrow and Messer (1983) and Morgan and Harmon (1984), for example, reviewed research finding lower persistence at tasks among neglected, abused, and mentally retarded children. This research suggests that persistence at one age provides a relatively good indication of a child's competence at a later age. Significant correlations were found for 11 out of 25 (44%) predicted relationships between the DMQ and behavioural measures; of these, the strongest correlations were found for the Independent Mastery and Mastery Pleasure scales (Morgan, 1985). A study of the internal consistency of the scales was conducted with 155 mothers of one-to three-year-old children; standardized item alphas were found to be .73 on the Persistence scale, .76 on the Mastery Pleasure scale, .74 on the Competence scale and .79 on the Independent Mastery scale (Morgan, Maslin & Harmon, 1986). Mothers' perceptions of general persistence, independence and competence were moderately intercorrelated, with an average correlation of  $\bar{r}=.40$ .

The consistency of incoming information regarding children's independence was measured using mothers' Wave 1 scores on the Independent Mastery scale of the

DMQ. The items are contained in Appendix C. Perceived child behaviour was defined as highly consistent if: 1) all 5 responses are the same or 2) a combination of either "not at all typical" and "not typical" or "very typical" and "typical" options were endorsed across the 5 items. Moderate consistency was indicated when: 1) a combination of "typical" and "not typical" responses was endorsed across the 5 items or 2) a combination of "typical" and "not typical" with 1 or 2 "not at all typical" or "very typical" responses was endorsed. Low consistency was indicated by a combination of 1) "very typical" and "not at all typical" responses, 2) "not typical" and "very typical" responses, 3) "not at all typical" and "typical" responses, 4) 3 "not typical", 1 "typical" and 1 "very typical" responses, or 5) 2 "not at all typical", 2 "very typical" and 1 "not typical" or "typical" responses. Scores were assigned to each of these combination of responses on a continuum of consistency ranging from 1 to 12, with higher scores indicating greater perceived consistency of the child's mastery independence.



### Data Analysis

Correlation and regression analyses were conducted in this study. First, the intercorrelations among the independent and dependent variables were computed. The findings from these correlational analyses were considered in the interpretation of the regression analyses. The degree of support for each hypothesis was examined as follows:

- 1) In order to evaluate the contributions of attitude-behaviour dissonance, attitude intensity and consistency of behaviour, to maternal attitude change, Pearson's product-moment correlations were computed.
- 2) An hierarchical regression procedure was used to examine the role of intensity in moderating the relation between attitude-behaviour dissonance and degree of change in maternal attitudes. Dissonance was entered into the regression model first, then intensity was entered. Next, intensity by dissonance was entered and tested for an interaction effect. It was expected that the amount of variance in attitude change that would be accounted for by the magnitude of the attitude-behaviour discrepancy would be increased when moderated by the intensity of the parent's attitude.

3) An hierarchical regression procedure was used to examine the role of consistency of child behaviour in moderating the relation between attitude-behaviour dissonance and maternal attitude change. Dissonance was entered into the regression model first, followed by consistency. Next, consistency by dissonance was entered and tested for an interaction effect. It was expected that the amount of variance in attitude change that would be accounted for by the magnitude of the attitude-behaviour discrepancy would be increased when moderated by the consistency of the child's behaviour.

## Results

The purpose of the present study was to determine whether the degree to which change in maternal attitudes toward independence in children could be predicted from the degree of dissonance between maternal attitude and child independent behaviour, the intensity of their initial attitude, and the consistency of their child's independent behaviour. It was hypothesized that dissonance would be a predictor of attitude change, since there may be no need for a mother to change her attitude if no discrepancy exists between her attitude and her child's behaviour. It was expected that intensity and consistency would also be predictive of attitude change. Finally, it was hypothesized that both intensity and consistency would moderate the effect of dissonance on attitude change. These interactions were expected to contribute further to the prediction of attitude change.

Table 1 contains the mean scores and standard deviations for the dependent and independent variables. As the children of the subjects ranged in age from 1 to 4 years, a preliminary examination of the relations between age and the other variables under study was

Table 1

Descriptive Statistics for the Dependent and  
Independent Variables<sup>a</sup>

| Variable                     | Mean  | SD   | Median | Range |
|------------------------------|-------|------|--------|-------|
| Dependent                    |       |      |        |       |
| Attitude Change <sup>b</sup> | 1.86  | 1.48 | 2      | 6     |
| Independent                  |       |      |        |       |
| Dissonance <sup>c</sup>      | 3.10  | 3.14 | 2      | 13    |
| Consistency <sup>d</sup>     | 6.55  | 3.49 | 6      | 11    |
| Intensity <sup>e</sup>       | 13.62 | 2.74 | 14     | 12    |

<sup>a</sup>N=29

<sup>b</sup>possible range of scores was 0 - 15.

<sup>c</sup>possible range of scores was 0 - 15.

<sup>d</sup>possible range of scores was 1 - 12.

<sup>e</sup>possible range of scores was 5 - 20.

undertaken. No significant relation was found at  $p < .05$  between child's age and attitude change, dissonance, consistency nor intensity. There was relatively little dissonance between mothers' attitude and child behaviour ( $M=3.10$  on a scale from 0 to 15) and a moderate amount of variance in scores ( $SD=3.14$ ). There was low-to-moderate consistency in children's independent behaviour ( $M=6.55$ ,  $SD=3.49$ ), and the intensity of mothers' initial attitude toward independence was moderate ( $M=13.62$ ,  $SD=2.74$ ). There was little attitude change over time ( $M=1.86$ ), with little variance in scores ( $SD=1.48$ ) and a very restricted range (i.e., the maximum possible score was 15, the maximum score received was 6). Because absolute values were used to index attitude change and dissonance, the distributions of these variables were slightly skewed, although not enough to require a transformation of the data (L. Armstrong, personal communication, June 2, 1994, Department of Statistics, University of Manitoba).

#### Preliminary Analyses

The four variables examined in this study were measured using the same two subscales. Therefore, it

was necessary to assess the intercorrelations among the independent variables. Significant intercorrelations may suggest that the variables are measuring similar phenomena and therefore that their effects may not be separable in a regression analysis. To determine how strongly the independent variables were related to each other, Pearson's product-moment correlations were computed and are shown in Table 2.

Nonsignificant correlations based on an alpha level of .05 were found between intensity of maternal attitude and attitude-behaviour dissonance,  $r(27) = -.07$ , ns. and between intensity and behaviour consistency,  $r(27) = -.16$ , ns. A significant positive correlation was found between attitude-behaviour dissonance and behaviour consistency  $r(27) = .51$ ,  $p < .01$ .

#### Hypothesis 1: Contributions of the Independent Variables to the Prediction of Attitude Change

The first hypothesis tested in this study was that attitude-behaviour dissonance, intensity, and consistency would be related to maternal attitude change. The hypothesis was tested by computing Pearson's product-moment correlations between dissonance and attitude change, between intensity and

Table 2

Intercorrelations Among the Independent Variables<sup>a</sup>

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|             | Intensity | Consistency |
|-------------|-----------|-------------|
| Dissonance  | -.07      | .51*        |
| Intensity   |           | -.16        |
| Consistency |           |             |

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<sup>a</sup>N=29\* p<.01.

attitude change, and between consistency and attitude change. It was expected that dissonance would be positively related to attitude change because, according to the theory of cognitive dissonance (Festinger, 1957), discrepancy creates discomfort which, in turn, precipitates cognitive change. Dissonance was found to be significantly and positively related to attitude change,  $r(27) = .59, p < .001$ .

It has been found that the stronger one's attitude, the less likely one is to change it (Zimbardo, 1969). Therefore, a negative relationship was expected between intensity of attitude and attitude change. The expected relation was not found,  $r(27) = -.31, ns$ .

It has also been found that when observed behaviour is inconsistent across situations or time, schematic change (i.e., attitude change) is less likely (Crocker, Fiske & Taylor, 1984). Thus, it was expected that the more consistent the mother perceived her child's behaviour to be, the more likely her attitude would be to change. As predicted, consistency was significantly and positively related to attitude change,  $r(27) = .42, p < .05$ .



### Hypothesis 2: Moderating Effect of Attitude Intensity

It was predicted that the relation between dissonance and attitude change would be moderated by the intensity of the attitude at Time 1. It has been suggested that the intensity of an IWM (i.e., attitude) is negatively related to its adaptability (George & Solomon, 1989); that is, the more intense an initial attitude the more stable or rigid it will be. Therefore, it was expected that if a mother's attitude was very discrepant from her child's behaviour, the likelihood of change in her attitude would depend on how intensely she held her attitude. To test this hypothesis, an hierarchical regression equation was computed. Dissonance was entered first, then intensity was entered at step two, and finally the dissonance by intensity interaction was entered at step three. The results are shown in Table 3. The main effect of dissonance was significant ( $R^2=.35, p<.001$ ). Over and above the effect of dissonance, intensity did not significantly increase the prediction of attitude change,  $\Delta R^2=.08$ . There was no significant interaction effect ( $\Delta R^2=.01$ ).

Table 3

Hierarchical Regression Analysis Assessing the  
Independent and Interactive Effects of Dissonance and  
Intensity on Attitude Change<sup>a</sup>

| Step and<br>Predictor | Attitude Change      |                       |                    |                                 |
|-----------------------|----------------------|-----------------------|--------------------|---------------------------------|
|                       | Multiple<br><u>R</u> | <u>R</u> <sup>a</sup> | <u>r</u><br>change | <u>F</u> for<br><u>r</u> change |
| 1. Dissonance (D)     | .59                  | .35*                  | .35                | 14.54*                          |
| 2. Intensity (I)      | .65                  | .43                   | .08                | 3.65                            |
| 3. D X I              | .67                  | .44                   | .01                | .45                             |

<sup>a</sup>N=29

\* p<.001.

Hypothesis 3: Moderating Effect of Consistency of Child Behaviour

The third hypothesis was that the relation between attitude-behaviour dissonance and attitude change would be moderated by the consistency of child behaviour. It has been found that if discrepant information occurs consistently it is more likely to be integrated into one's schema (Crocker, Fiske & Taylor, 1984). To evaluate the moderating effect of consistency on the relation between attitude-behaviour dissonance and attitude change, an hierarchical regression equation was computed. Dissonance was entered in step one, consistency was entered into the equation in step two, and the interaction between dissonance and consistency was entered into step three of the regression equation. The results are shown in Table 4. The main effect of dissonance was significant ( $R^2=.35, p<.001$ ), the effect of consistency was nonsignificant ( $r$  change=.02, ns) and the interaction effect was nonsignificant ( $r$  change=.06, ns).

Because dissonance and consistency were significantly correlated, the order of entry was reversed in order to further examine their relation.

Table 4

Hierarchical Regression Analysis Assessing the  
Independent and Interactive Effects of Dissonance and  
Consistency on Attitude Change<sup>a</sup>

| Step and<br>Predictor | Multiple<br><u>R</u> | <u>Attitude Change</u> |                    |                                 |
|-----------------------|----------------------|------------------------|--------------------|---------------------------------|
|                       |                      | <u>R</u> <sup>2</sup>  | <u>r</u><br>change | <u>F</u> for<br><u>r</u> change |
| 1. Dissonance (D)     | .59                  | .35*                   | .35                | 14.54*                          |
| 2. Consistency (C)    | .61                  | .37                    | .02                | .83                             |
| 3. D X C              | .66                  | .43                    | .06                | 2.63                            |

<sup>a</sup>N=29

\* p<.001

Consistency was entered first. When dissonance was added, R squared increased from .17 (p<.05) to .37 (p<.01), suggesting that dissonance is the primary predictor of attitude change.

## DISCUSSION

The first purpose of this study was to test the hypothesis that attitude-behaviour dissonance, attitude intensity and behaviour consistency are related to maternal attitude change. Previous research has shown that information that is dissonant or inconsistent with one's cognitions creates a need to restore cognitive consistency, which is achieved by changing one's attitude to match the information (Crocker, Fiske & Taylor, 1984). According to cognitive dissonance theory, dissonance establishes a situation in which cognitive change is enhanced in order to regain cognitive consonance. Therefore, it was expected that dissonance would be a strong predictor of attitude change. Research has also shown that attitude or belief change is linked to the initial intensity of the attitude; the more strongly the attitude is held, the less likely it is to change (Main, Kaplan & Cassidy, 1985). It has also been found that when new or dissonant information is presented, it has more influence on one's attitude if it is unambiguous (i.e., occurs consistently) than if it is ambiguous (Crocker, Fiske & Taylor, 1984). While the research literature

indicates that dissonance, intensity and consistency all relate to attitude change, the relative contributions of each of these factors and the way in which the factors interact with one another have not previously been examined and were the focus of the present study.

In accordance with cognitive dissonance theory, it was found that attitude-behaviour dissonance explained a significant amount of variance in attitude change. This finding indicates that mothers respond to their children's behaviour by changing their IWMs more readily than previous research suggests (Broussard, 1979; Hazan & Shaver, 1987; Schneider, 1991). Mothers whose children did not match their IWMs of independence tended to change their attitudes over time. Therefore, mothers' attitudes (IWMs) appear to be relatively flexible and the dynamics of mother-child relationships appear to be bi-directional. This is not what some previous researchers have found. For example, Broussard (1979) found mothers' perceptions of newborns appeared to be based more on their own than the infants' characteristics. Similarly, Zeanah, Keener & Anders (1986) found that parents' perceptions of their

prenatal child's characteristics continued to be confirmed at six months of age. This discrepancy in findings may be attributed to the fact that the parents in these studies had not had an opportunity to observe their infants' behaviour over an extensive period of time. Maccoby and Martin (1983), in commenting on an unpublished study by Paton in which it was found that behaviour change in hyperactive boys given medication was perceived more readily by observers than by mothers, suggested that mothers require time to reorganize their perceptions of their children's behaviour. In the present study, it may be assumed that mothers had had time to adjust their perceptions of their children's changing independent behaviour. This may explain the discrepancy between the findings of the present study and those of earlier studies.

Other findings were not entirely consistent with theory and research concerning the effects of attitude intensity and consistency on attitude change. Previous research has indicated that the initial strength or intensity of an attitude affects its adaptability (George & Solomon, 1989); the more intense one's initial attitude, the less likely it is to change



(Zeanah & Anders, 1987; Zeanah, Keener & Anders, 1986). According to Crocker, Fiske and Taylor (1984), dissonant behaviour that is perceived to be consistent (i.e., unambiguous) is more likely to be integrated into one's IWM. The present study showed dissonance alone to be the best predictor of attitude change. When individually added to dissonance, neither intensity nor consistency contributed significantly to the explanation of variance in attitude change. Therefore, if for example, a mother believed that children should be independent and she perceived her own child as dependent, it was expected that she would change her attitude toward independence in children unless her attitude was strongly held; that is, it was expected that the intensity of the maternal attitude would moderate the relation between the dissonance and the mother's attitude change. If, in a second example, a mother's attitude toward independence was discrepant from her child's consistently occurring dependent behaviour, it was expected that the maternal attitude would likely change. It was expected that the consistency of the child's behaviour would moderate the relation between the dissonance and the likelihood of

change in the mother's attitude. These findings, however, were not confirmed.

#### Implications of Findings

The present findings suggest that mothers are aware of and sensitive to their children's developmental changes when the changes are dissonant with mothers' initial attitudes. This cognitive adaptability may play an important role in the promotion of children's development as mothers accept and adjust to unexpected behavioural styles. The present findings support the prediction that parents' beliefs can be shaped by their children's behaviour and that, therefore, the relationship between parental cognition and children's behaviour is bidirectional in nature.

When dissonance exists between maternal attitude and child behaviour, mothers' cognitions and children's behaviour affect the likelihood of mothers changing their attitudes. The intensity of a mother's attitude, however, does not appear to have an effect on whether she will change her attitude given a discrepancy from her child's behaviour. Also, the likelihood of mothers changing their attitudes toward their children's

discrepant behaviour appears not to be based on how consistently the discrepant behaviour occurs. It appears, therefore, that a perceived discrepancy experienced by mothers is enough to initiate change in mothers' attitudes toward independent behaviour. This is further evidence that the adjustments mothers make in their attitudes to their children's behaviour occur in response to their children's behaviour and do not depend solely on their own cognitive characteristics.

#### Limitations of this Study

The present study had three primary limitations. First, the small sample size may have contributed to the limited variance found in maternal attitude change. Intensity and consistency might have significantly added to dissonance in the prediction of attitude change had the sample size been larger as this would have reduced the size of the error term and made it more likely that effects, if any, of intensity and consistency would be detected. According to a power analysis, at least 25 subjects were required in order for the statistical analyses to have adequate power to detect effects. This study had 29 subjects which is adequate to detect main effects. However, interaction

effects are likely to be detected only with a relatively large sample size (e.g., McClelland & Judd, 1993).

Second, some of the independent variables may not have been adequately measured. Mothers' perception of the consistency of her child's behaviour was measured by means of a parent questionnaire. The scoring of consistency was based on the degree to which mothers responded consistently to a series of questions concerning their perceptions of their child's dependence or independence. These questions may have assessed the consistency of mothers' reports rather than their perceptions of the consistency of their children's behaviour. A more direct measurement of mothers' perception of the consistency of their children's behaviour across situations and time may have yielded different results.

The measurement of attitude intensity may also have been inadequate. The PARI subscale may not have been expansive enough to adequately measure intensity of attitude given that it contained only five questions assessing attitudes toward children's independence. A more reliable measure might be obtained by having

mothers rate specific scenarios of children behaving in progressively dependent versus independent ways.

A third limitation was the use of the same measures to assess all four variables examined in the study. It would be preferable if the measures of dissonance, consistency and attitude change were uncorrelated. This would clarify which variables are responsible for which effects. For example, dissonance and consistency, attitude change and consistency, and consistency and attitude change, were each found to be significantly correlated; when entered into a regression equation, it became unclear whether they were measuring different or similar phenomena. Were it not for this problem, it may have been possible to detect significant effects of intensity and consistency.

#### Directions for Future Research

The present study found that the more children's behaviour is discrepant from mothers' attitudes, the more likely mothers are to change their attitudes. The logical next step in research would be to determine the direction of change in the attitude. When a mothers' attitude is very intense and is discrepant from her

child's behaviour, does her attitude change in order to match her child's behaviour or does it become more discrepant from the behaviour? Similarly, when a child's behaviour occurs consistently, does the mother change her attitude to match her child's behaviour or to become more discrepant from it? A number of studies highlight the importance of addressing these questions.

Studies have shown that parents' beliefs about their child's cognitive levels (e.g., imagery, conservation, interpersonal problem solving) and the child's actual cognitive outcomes are related (Hunt & Paraskevopoulos, 1980; McGillicuddy-Delisi, 1985; Miller, 1986). Hunt and Paraskevopoulos (1980) found that children of mothers who under- or overestimated their child's behaviour, did not develop in their performance as well as children of accurate mothers. The greater the inaccuracy of mothers' judgement of the child, the poorer the child's development. An important question raised by these findings is whether maternal attitude change is related to the outcome of their children's independent performance. That is, when mothers change their attitudes, are they accommodating their children's development and

providing an optimal environment for competencies by decreasing the dissonance or are they expecting something different from their children and increasing the dissonance? Perhaps some mothers change to match their children's behaviour while some do not. The direction in which mothers change is undoubtedly determined by a number of factors in both the mother and the child. Researchers might examine the interactive effects of maternal personality characteristics and child temperamental characteristics on the intensity, consistency and adaptability of maternal attitudes.

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Appendix A  
Letter of Introduction





THE UNIVERSITY OF MANITOBA

FACULTY OF HUMAN ECOLOGY  
Department of Family Studies

Winnipeg, Manitoba  
Canada R3T 2N2

(204) 474-9225

March 27, 1986

Dear Parents:

At the Child Development Centre one of our primary functions is to conduct research on child development. As part of our ongoing efforts in this area we are currently working on developing some questionnaires which we would like to administer to parents of children attending the centre.

In the questionnaire that follows you will find questions on parent background characteristics, parent attitudes, parent personality and parent's perception of the child. You will notice that your name does not appear on the questionnaire. Please do not put your name on the questionnaire. Each family is receiving two questionnaires, one to be completed by mother and the other by father. The questionnaires have been numbered in such a way that we will be able to link data from the same family. We will not, however, be linking any individual's responses with that person's name. In other words, your individual responses to the questionnaire will be kept confidential at all times. Although we hope that you will decide to complete this questionnaire, you are of course under no obligation to do so. If you do decide to complete the questionnaire please put the completed questionnaire back in the envelope provided, seal the envelope and return it at the time you come in for your parent-teacher interview. If you have any questions or comments concerning the questionnaire please contact Dr. Brockman at

Thank you for participating in and contributing toward the research function of our Child Development Centre.

Yours truly,

Dr. Gordon E. Barnes  
Head  
Department of Family Studies

Dr. Lois M. Brockman  
Director  
Child Development Centre

GEB/dah

Attachment

Appendix B  
Parental Attitude Research Instrument (PARI)  
Fosters Dependence Scale

Read each of the statements below and then rate them as follows:

- | A                 | a               | d                  | D                    |
|-------------------|-----------------|--------------------|----------------------|
| strongly<br>agree | mildly<br>agree | mildly<br>disagree | strongly<br>disagree |
- 
1. A good mother lets her child learn the hard way about life.
  7. A child has to learn that he has to be disappointed sometimes.
  13. Children would be encouraged to undertake tough jobs if they want to.
  19. Children have to face difficult situations on their own.
  25. Children should be encouraged to undertake all kinds of jobs no matter how hard.

Appendix C  
Dimensions of Mastery Questionnaire (DMQ)  
Independent Mastery Scale

Rate how the child usually plays. Please answer all questions even if you are not sure. CIRCLE the number that best indicates how typical each statement is of this child.

|     |  | NOT AT<br>ALL<br><u>TYPICAL</u> |   | VERY<br>TYPICAL |   |
|-----|--|---------------------------------|---|-----------------|---|
| 3.  | Seeks help right away if has difficulty using a toy.       | 1                               | 2 | 3               | 4 |
| 8.  | Likes to figure things out without help.                   | 1                               | 2 | 3               | 4 |
| 12. | Likes help when having a hard time figuring something out. | 1                               | 2 | 3               | 4 |
| 15. | When a toy is challenging, seeks assistance.               | 1                               | 2 | 3               | 4 |
| 19. | Prefers to do things on own even when they are hard.       | 1                               | 2 | 3               | 4 |