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Maternal Attributions and Attachment

by

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A thesis submitted in conformity with the requirements for the degree of Masters of Arts
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Abstract

Maternal Attributions and Attachment

Masters of Arts 1999

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This research investigated the relationship between a mother's attributional style and representations of attachment, measured by the AAI. It is hypothesized that the cognitive schema's defined by each of the theories may be describing a similar cognitive appraisal process. Attributional style was measured in two ways. One method involved the completion of inventories that assessed dimensions of attributional style. To supplement the inventories a qualitative assessment of global and specific attributional styles was performed. The results revealed a significant relationship between the qualitative assessment of the global/specific attribution dimensions and attachment. The specific dimension was evenly distributed between attachment categories. However, the global dimension significantly differentiated secure mothers from those classified as insecure. Insecure mothers did not make responses that reflected the global dimension. None of the attributional dimensions assessed through the questionnaires were significantly related to representations of attachment. The results provide preliminary evidence suggesting that attributional processes may be related to attachment security.
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Introduction

Attachment theory and attribution theories are information-processing approaches to conceptualizing the association between cognitions and behaviour. This approach organizes human cognition into 3 main areas: the first concerns the input of information from the environment, which can be received from various sensory receptors including sight and sound. The second stage concerns the processing of this information in the brain. This information can be acted upon in a number of ways. Theorists contend that the processing of information takes place through a number of mechanisms, some of which include: encoding information into symbolic forms, comparing it with previously acquired information, storing it and then later retrieving it. The final aspect concerns the output of information, for example through behaviour, speech, and social interaction. (Vasta, Haith, & Miller, 1992).

The information-processing approach postulates that information is stored and filtered through cognitive schemas. By definition, a schema is "a general representation of the typical structure of a familiar experience. This experience may include a scene or an event." (Vasta, Haith, & Miller, 1992 p. 307). Schemas hold important information and knowledge of past events. They provide us with a way of storing this information and retrieving it for future reference.

The information-processing framework is the foundation of both the attachment and the attribution literature. The purpose of this paper is to explore the relationship between these two theories. In doing so it will explore the similarities and the differences between these two approaches to explaining the processing of information.

Attachment Theory

Attachment theory, first proposed by Bowlby (1969/1973/1980), is the study of the relationship between children and their primary caregiver, often the mother. Attachment is a biologically based drive that is believed to be responsible for keeping children in close proximity to their primary caregiver (Bretherton, 1985). In times of distress, illness, or fatigue, a child will retreat to the safety of the mother for comfort and protection. This provides the child with the knowledge that a secure base is available to them, which leaves them confident to explore their environment.
An important aspect of the theory is the notion of ‘internal working models’. These models refer to cognitive representations of the self and others in close relationships (Bretherton, 1985). Internal Working Models are made up of a personal history of interaction and experiences in close relationships that act as a template on the expectations of the self and self in relation to others within relationships.

Bowlby (1980) defined attachment as an “organization of a system within a person.” He postulated that experiences and information that was organized cognitively would, in turn, affect behaviour. He adopted an information processing model to explain the various stages of cognitive selection, interpretations, and appraisal, which took place before behaviour was affected (Bowlby, 1980). Bowlby recognized internal working models as being a part of an ongoing processing of information with current and previous events and situations, and this is one of his more important observations. Bowlby suggests that past experiences and expectations are used to generate ‘guesses’ about the role of the self and others in personal/intimate relationships. The action that follows any analysis is based on how events are perceived.

Overall, Bowlby was concerned with the link between the cognitive processes responsible for processing information and observable behaviour as it is related to the relationship between mothers and their infants. Previous events and experiences are organized conceptually as the individual in making judgements and forming expectations about future behaviour utilizes internal working models.

Mary Ainsworth, who developed a means of assessing the attachment relationship between mothers and their infants, extended Bowlby’s work (Bretherton, 1992). This procedure, known as the ‘strange situation’, involves a series of separations and unions between mothers and their babies. The baby’s behaviour is assessed during these separations and subsequently a decision is made as to the baby’s attachment category. There are two main categories, secure or insecure. The insecure category is made up of 3 main subclassifications in infancy and are known as ambivalent, avoidant/resistant, and disorganized (Bretherton, 1992: Karen, 1990).
Attachment, beyond infancy, is studied by way of the Adult Attachment Interview (Main & Goldwyn, 1991). The interview is semi-structured and focuses on a parent's understanding of early childhood events and situations. As in strange situation procedure, the AAI also leads to the classification of attachment along assigned categories. The autonomous/insecure groupings remain the same. There are also 3 main categories within the insecure grouping and they are known as unresolved, preoccupied, and dismissing (Main & Goldwyn, 1991).

Interview responses of dismissing mothers on the AAI negate any harmful or negative effects of early attachment relationships upon the self. This attachment group often places value on independence and personal strength. Their state of mind regarding early experiences is to idealize their parents and their early experiences and to minimize the negative. Attachment related information may be discussed as being separate from the self and their own personal experiences (Main & Goldwyn, 1991).

Individuals rated as secure on the AAI provide responses which are considered to be “collaborative” and “consistent”. Answers demonstrate an ability to explore their thoughts and feelings. Those rated as secure are highly aware of their experiences with parents and the effects of these experiences upon the self. They appear flexible to altering their present perspectives. Their state of mind reflects an understanding of their role, as well of the role of others in relationships. They openly discuss the need to depend on others. When discussing early experiences they are able to provide memories to support their early experiences (Main & Goldwyn, 1991).

Individuals rated as preoccupied demonstrate an excessive preoccupation with early attachment relationships. This level of focus makes it difficult for them to move beyond these events. When describing early childhood experiences they may “oscillate” from descriptions of parents as negative to then describing them as positive. Positive descriptions are then followed by something negative. Their state of mind reflects an overall preoccupation with attachment related information. This may interfere with their ability to remain on topic throughout the course of the interview (Main & Goldwyn, 1991).
A rating of disorganized is assigned in circumstances where interview respondents are still having difficulty with unresolved feeling surrounding abuse or loss. Interviews may include extreme behavioral reactions to these events. Interviewee’s may display momentary lapses in reason or discourse during the interview. Individuals rated as unresolved/disorganized are assigned an alternate (secure, dismissing, preoccupied), attachment classification.

**Attribution Theory**

Interestingly, the notion of internal working models seems to directly parallel the processing of information, as described by Kelly, 1972, known as causal schematas. These schemas by definition, explain how a style of attributing the cause of an event, along defined dimensions within the theory, basically leave a person with a particular attributional style. Overall, the focus aims at explaining the cognitive processes individuals rely on when they arrive at a determination as to the cause of an event or situation (Dix & Grusec, 1985).

Attribution theory is a compilation of models from various theorists that are independently trying to evaluate and explain the mental processes that individuals use to make a formulation of the cause of an event or situation (Miller, 1995). Miller (1995) defined attribution as having to relate with the way in which we explain and evaluate behaviour, both the behaviour of others and our own behaviour (pg1557).

The term “causal schema’s” describes the cognitive filter, which mentally assimilates or stores current events. Kelly (1972) used a hypothetical data matrix (Analysis of Variance Model) as a metaphor for understanding the schemas. The matrix is used to show how previous cause-event relationships are organized. The association of particular causes with certain events is a result of past experiences. Kelly explain’s “the attributer’s beliefs and assumptions about the distribution of the effect over various combinations of causal factors leads to a determination of the cause and effect.” Kelly argues that these mental schemas actually represent a culmination of past experiences (event relationships). These schemas in turn prevent a complex analysis of every situation.
Once a cause-event association is learned it may be activated by an event that closely resembles it. Kelly contends that any single event relationship is applicable to a broad range of objects and situations. An important aspect to causal schemas is they make it unnecessary to form a complex analysis of cause and effect relationships in every circumstance. These schemas reflect the individual's basic notion of reality, including assumptions they may hold about event relationships. For example, an internal attribution might be made, if the individual "uniquely" and "consistently" completed the action. On the other hand an external attribution might be attributed to the task if the successful action were "uniquely" and "consistently" associated with it. Overall, causal schemas represent an "unconscious search" for a cause-event relationship that closely resembles the circumstances at hand.

Attributional theory is the application of attribution principles in understanding how human behaviour affects these cognitive processes. The most developed attributional theory is Weiner's (1974) taxonomy of attributions that consists of 3 dimensions of attribution internal/external, stable/unstable, and global/specific. Weiner has focused his investigation of attributional theory in the study of achievement. The dimensions are used as a means of understanding and qualifying high versus low achievement. These styles have been found to be relevant to the study of achievement behaviour (Weiner, 1974; Weiner, 1990) and also in the formulation of models about depression (Abramson, Seligman, & Teasdale, 1978; Seligman, Abramson, Semmel, & Von Baeyer, 1979).

Weiner (1974) believes attributions influence how we react to events. Attributions are formulated following the observation of behaviour. Expectations about future behaviour and affective reactions develop. These expectations then influence the type of response that follows. Weiner has developed a means to assess the attributional schemas. The attributional dimensions proposed by Weiner have become the basis of many inventories and questionnaires.

There are 4 main attributional dimensions: (1) internal/external, (2) stable/unstable, (3) controllable/uncontrollable, and (4) global/specific. The internal/external dichotomy refers to whether the cause has been attributed as resulting from lack of ability or effort or from luck, chance, or circumstance. (McAuley, Duncan, Russell, 1992; Peterson, Semmel, von Baeyer, Abramson, Metalsky, Seligman, 1982). The second dimension reflects the stability (stable/unstable) of the presence of the cause into the future (McAuley, Duncan, & Russell,
The third dimension deals with the perception of the controllability (controllable/uncontrollable) of the cause (McAuley, Duncan, Russell, 1992). The final dimension known as global-specific concerns the impact of the cause on the individual's life. A specific attribution is made when the cause is perceived as being isolated and in no way connected to other aspects of life. Conversely, a global attribution is made when the cause is believed to affect all aspects of life. This would include family, relationships, work, and friendships (McAuley, Duncan, Russell, 1992; Peterson, et al. 1982).

A meta-analytic review by Joiner and Wagner (1996) found that the globality/stability dimension was the strongest predictor of parental satisfaction and child adjustment. Since the focus of this research is on attributions in the context of parent child relations, this dimension is of particular interest. Therefore, one of the self-report questionnaires used in this study was amended to include the global-specific dimension. The format for the change was adopted from an earlier study by Benson, Arditti, Reguero De Atiles, and Smith (1992) who altered the Revised Casual Dimension Scale II to include questions that assessed the global dimension.

**Comparison between Attachment and Attribution Theory**

As stated previously, both the attachment and attribution literature is fundamentally based on an information processing approach. This however, is not the only similarity between the theories. The terms and descriptions used by various theorists are strikingly similar. Table 1 compares the descriptions provided in the literature by attachment and attribution theorists. A theoretical comparison of the approaches has identified the following relationships:

- The reliance on and conceptualization of cognitive schemas.
- Cognitive schemas store all incoming information.
- Cognitive representations are conceptualized as filters. All incoming information is analyzed in light of previous knowledge. This is important as it makes it unnecessary to make a new appraisal for every situation.
- Recognition that cognitive representations are malleable and are therefore amended to reflect new information and situations.
- Processing takes place at an unconscious level. This facilitates the automation of behaviour.
Attributions have also been suggested as being a vehicle for the transmission of attachment relationships from parents and their children (Lieberman, 1997). Lieberman argues that because attributions are internalized they are an important part of the self. This is relevant to attachment as the attributions made by the mother effect the child’s working model of attachment. Lieberman suggests that the study of attributions is relevant to attachment theory as it allows for the recovery of themes, themes that in turn ultimately influence behaviour. This may provide an understanding of some of the processes that take place in mother-child attachment.

**Methodological Differences Between the Theories**

Despite the similarities between the two theories each has approached the study of the link between cognitive processes and behaviour differently. As previously discussed, adult attachment representations are assessed through the Adult Attachment Interview. The AAI is not intended to analyze the descriptions of early childhood experiences. It focuses on the coherency of these descriptions. Interviewees are asked questions about the early experiences, in particular their past and current relationships with parents (van IJzendoorn & Bakerman-Kranenburg, 1997). When coding the AAI narrative, the focus is on whether the adjectives about early childhood experiences provided can be substantiated with concrete examples. It is the inconsistencies between the initial reports (adjectives) of their childhood and their memories, and the way these inconsistencies are manifested, that lead to the various attachment classifications.

The AAI is the only reliable and valid instrument to assess adult attachment representations. Van IJzendoorn & Bakerman-Kranenburg (1997) argued that other instruments for measuring attachment have failed because they have relied on autobiographical approaches to assessing early childhood experiences. This assessment approach directly contradicts the main assumptions of attachment theory. By definition an insecure attachment is a person who has difficulty objectively analyzing early experiences, and in some cases remembering, childhood events. Van IJzendoorn & Bakerman-Kranenburg asserted that the strength of the AAI is its emphasis on the coherency of the narrative and not on its content. They assert that the analysis of the content prevents the interviewer from distinguishing between the person’s idealization of experiences from descriptions of actual positive attachment experiences.
The main approach to the study of attribution is through 'self report questionnaires'. These questionnaires provide typical scenario's of positive and negative events which require the individual to rate their attributions. This evaluation format has been criticized because it is highly dependent upon the individual being capable of honestly and accurately reporting the attributions they make in such circumstances. Furthermore, the questionnaire format forces individuals to choose an attributitional dimension that reflects their perception of the cause of the situation/event. It is conceivable that they have endorsed a response only because the question was asked and not because this attribution spontaneously occurred. Miller (1995) identified this lack of spontaneous measurement of attributions as being an important shortcoming of the theory. He suggests the use of an open-ended format, which would allow for the analysis of the attributions that occur naturally. The criticisms put forth by van IJzendoorn & Bakerman-Kranenburg are also applicable to the methodological approach adopted by attribution theorists. The self-report inventories used in the literature rely on the accurate reporting of attributions. It may be that self-report of attributions may not reliably provide us with information about the types of attributions that are made or not made in certain circumstances. It is possible that the feature that defines each attributional style not what they report but what they are unable to report. The questionnaire approach, which focuses on content, does not provide this information.

It is postulated that a single process of cognitive appraisal may explain what is being defined by both theories. This suggests that internal working models, defined within attachment theory, and causal schemas, described by attribution theorists may not be independent of one another. It is plausible that they are a product of the same unconscious cognitive process.

The purpose of this research will be to further explore the relationship between attribution and attachment theory. Attributional style will be assessed in two ways. The first is through the use of self-report inventories that are commonly used in the literature. The second is a qualitative approach, which is designed to assess spontaneous attributions in an interpersonal context. The attribution literature has not focused on the study of interpersonal relationships. Moreover, the traditional approach to studying attributional style has relied on self-report inventories and has not evaluated attributions as they naturally occur. Therefore, one of the goals of this research will be to question whether attributional styles are related to attachment classifications when evaluated outside of interpersonal contexts.
When attributional style is assessed in contexts specific to interpersonal relationships it is expected that preoccupied individuals will make attributions that reflect their intense focus on interpersonal interactions. In handling difficult situations they cope by using others to help them regulate their stress levels. It is predicted that this style will be consistent with the notion of externality, defined within the attribution literature. Furthermore, as preoccupied people have difficulty letting go of past events it is believed that they will catastrophize the effects of the events. In particular, they will likely perceive it to have lasting effects, a stable attributional style, and to effect other areas of life, a global attributional style.

Those rated as autonomous are likely to have an attributional style that is similar to preoccupied but, the rationale for their strategies is different. These individuals, like the preoccupied, will recognize the potential of events to have lasting consequences. Thus, their attributions will reflect the stable and global dimensions. However, the autonomous are expected to differ from the preoccupied on the internal/external dimension. Autonomous individuals are likely to perceive themselves as being in an environment that they have some control over. This belief is consistent with both internal/external attributional dimensions. It is therefore expected that they will not be predominately one or the other, but that they will have elements of both dimensions.

Dismissing individuals unlike, autonomous and preoccupied, place a great deal of value on their independence. This characteristic is expected to translate into an internal attributional style. Their value of autonomy and need to feel in control will lead them to perceive the consequences of events to be short term and therefore not present into the future. This attachment style would be consistent with the unstable and specific attributional dimensions.

One measure of attribution in this study will be the Parent Attribution Test. This test does not assess attributional style along the same dimensions as the other attribution inventories used. Earlier research findings by Grusec and Mammone (1995) found a relationship between scores on the PAT and attachment. Secure mother’s accepted responsibility for failures but balanced this with an understanding that the child, in some circumstances, could also be responsible for caregiving failures. This rating is expected as secure mothers, by definition, respond sensitively to their children’s needs, yet this sensitivity is balanced with an understanding that some failures may be uncontrollable. Conversely, the insecure classifications lacked this equal consideration
of the responsibility of both the parent and the child. Preoccupied mothers were found to accept more responsibility for failures and the dismissing mother's accepted little responsibility, attributing failure most often to the child. It is hypothesized that the results of this study will support these findings.
Method

Subjects

A total of 120 mother/infant dyads participating in a longitudinal study of attachment, a joint project between the Hospital for Sick Children and The Center for Addiction and Mental Health – Clarke Division, were invited to participate in this study. Participants were sent information, along with the questionnaires, by mail. Participants were able to review the inventories and return the completed data if they were interested in participating. Of the 120 who were contacted 34 agreed to participate. There are some possible explanations for the low response number. First the participants had already agreed to invest a significant amount of time in the longitudinal project. Therefore, the additional demands proposed by this project might have been too great. Secondly, a few days following the mailing there was a postal strike which held up mail delivery for a number of weeks. This lead to many of the questionnaires being delivered around the December holiday season. As this is a busy time of year, the arrival time of the documents may have also contributed to the low number of completed and returned questionnaires.

For the purposes of data analysis the insecure classifications, (dismissing, preoccupied, and unresolved) were collapsed to make 1 insecure group. Combining the groups increased the sample size for the insecure category, which in effect increased the power of the statistical tests. Furthermore, an examination of the means for each of the sub categories did suggest that the groups were similar. This therefore, made it feasible to combine the groups in this way. Refer to Table 2 for group means for each questionnaire administered.

Measures

Attachment-Adult Attachment Interview

This is a semi-structured interview that asks participants to discuss early childhood experiences with parents (George, Kaplan, Main (1985) as cited by Steele, Steele, & Fonagy, 1996). Participants are asked for early childhood memories and to provide information to support the memories. A total of 15 set questions are asked and all probes to participant responses are fixed (van Ijzendoorn, 1995). Participants are asked to provide 5 adjectives to describe early childhood relationships for each parent and to identify which parent they are closest to. They are
asked to describe why they choose these adjectives and to provide memories to support them (van IJzendoorn, 1995). Participants are then asked specific questions which probe early childhood experiences of being hurt, ill, experiencing loss, abuse, and separations. They are then asked to provide an explanation for their parents’ behaviour in these incidents and to describe their present relationship with their parents. (George et al. 1985 as cited by Steele, Steele & Fonagy, 1996). Participants are rated as secure or insecure. The insecure subclassifications are preoccupied, unresolved, and dismissing. Descriptions of these classifications were provided earlier in the introduction.

**Questionnaires**

**Attributional Style Questionnaire (ASQ)**

The Attributional Style Questionnaire, designed by Peterson, Semmel, von Baeyer, Abramson, Metalsky, and Seligman (1982), is a self-report inventory used to assess attributional style. The scale measures attributional dimensions for both negative and positive situations. It is a 38 item scale containing 12 situations, six positives and six negatives (see Appendix A). For each situation the participant writes down the one major cause as to why the situation occurred. The three questions that follow each of the positive/negative scenarios in the questionnaire are answered based upon the participant’s response regarding the cause of the scenario presented. The three responses identify whether their style is internal vs. external, stable vs. unstable, global vs. specific. Participants, on a scale of 1-7, rate responses for each of these dimensions. Scores can be tabulated for each individual item (internal vs. external, stable vs. unstable, global vs. specific) or by calculating composite scores for all three dimensions. Positive and negative situations are tabulated independently.

The Attributional Style Questionnaire is a reliable and valid measure of attributional style. The questionnaire has internal consistency of (.75) and the test re-test correlation across dimensions are as follows; internal (.58), stable (.69), global (.57), and composite (.64).
**Parent Attribution Test (PAT)**

The PAT is designed to assess perceived causes of caregiving success and failure. It measures the extent to which the parents perceive the cause of success or failure as being attributable to the child or themselves. Participants are given a series of hypothetical caregiving situations. They answer questions based on these vignettes which are then calculated into composite scores. There are 2 scenario's and 18 statements. Participants must indicate on a 6-point scale how important the statement made is to their own beliefs about successful and unsuccessful interactions with children (see Appendix B). Scores are calculated to determine if the respondent is high or low (above or below norm group median) for caregiving success or failure.

The Parent Attribution Test has demonstrated reliability and validity. A reliability coefficient of .63 was obtained (Bugental, Blue, Cortez, Fleck, Kopeikin, Lewis, & Lyon, 1993).

**The Revised Casual Dimension Scale II (CDS II)**

The CDS II is designed to assess a person's perception of the cause of an event (McAuley, Duncan, Russell, 1992). Participants are presented with a scenario and a series of questions that assess attributional style. Participants are asked to provide a rationale/reason for their performance just described in the scenario. The questions that follow assess locus of causality, external control, stability, and personal control. Composite scores are calculated for each of these dimensions.

The Revised Casual Dimension Scale II does not include questions that assess the global/specific dimension. Since this dimension was of particular interest to this study three questions for assessing globality/stability were also included. As mentioned previously a study by Benson, et al (1992) altered the CDS by adding questions to assess this dimension. A similar format was adopted for use in this study. This therefore increased the size of the CDS II from the original 9 questions, making it a 12 point attributional scale. The Revised Casual Dimension Scale II has been found to be a reliable and valid measure of attribution (McAuley, Duncan, & Russell, 1992).
The benefit of using the Revised Casual Dimension Scale II to assess attributional style is that no standardized event scenarios are included with the inventory. This format allows the researcher to develop scenarios that are specific to the research topic. All of the scenarios designed for use in this study depicts a negative caregiving situation. Refer to Appendix C for a copy of the Revised Casual Dimension Scale II administered.

**Spontaneous Attributions**

**Film Based Attributions**

As stated earlier the mothers participating in this study were already involved in a longitudinal study of attachment. As part of their participation in that study they watched an edited version of the film “A 2 year Old Goes to Hospital”. Following the film participants were asked some questions. One of the questions asked following the film dealt with whether the participant believed the events that had taken place would have any long-term effects on the child’s relationship with her mother, and if so what would they be. Their responses were coded to determine if they reflected a global or specific attributional style. Initially, all responses were coded for internal/external, unstable/stable, and global/specific attributional dimensions. However, few participants spontaneously provided enough information in their responses to accurately judge the internal/external, stable/unstable dimensions. Therefore, these variables were excluded from the coding system. See Appendix D for a description of the global/specific coding system.

A specific rating was assigned if the participant’s responses reflected the possible effects of separation anxiety, fear, trust, or dislike for hospitals and doctors. This information was specific to the information presented in the film and reflects an understanding of the immediate or situation specific implications of the experience on the child. A global rating suggests that the participant not only recognized the issues defined by a specific response but, they went beyond the immediate information to provide alternate examples or discuss alternate ways that the mother-child relationship might be influenced by this event. Global responses could include a discussion of effects such as anger, nightmares, and rejection of food, lack of dependence, lack of confidence. These effects were generally not considered to be specific because they
considered possibilities that went beyond the doctor/hospital environment and the issue of separation between the mother and child.

A research volunteer with a background in psychology, but who was blind to the purpose of the study, was recruited to establish reliability. A Cohen’s Kappa was conducted and yielded a value of .806 of agreement.

**Alternate Coding of the Revised Casual Dimension Scale II**

The format of the Revised Casual Dimension Scale II requires the respondent to provide a written explanation of the reason for their performance in the scenario described. After analyzing the data, in particular the responses made for the film-based attributions, it was decided that the rationale/reasons given by the respondents on the CDS II should be assessed for the global/specific attribution dimension.

Refer to Appendix E for a description of this coding system. Generally, a specific response was considered one where the individual gave reasons specific to the scenario provided by the researcher. Overall, they provided information that did not differ from the information that was provided to them in the scenario. A global answer went beyond this information, they considered alternatives, and focused on explaining or justifying their behaviour.

An independent research assistant with a background in psychology, who was blind to the purpose of the study, coded 8 questionnaires to establish reliability. A Cohen’s Kappa was conducted and yielded a value of .859 of agreement.
Results

Demographics

Self-report questionnaires were distributed to 120 potential participants. 34 participants were able to complete and return their questionnaires in time for use in this study. A total of 48 Adult Attachment Interview's were coded. Film based attributions were assessed for 114 participants. The unequal number of Adult Attachment Interviews, self-report questionnaires, and ratings for the Film Based Attributions available for use in the study resulted in lower sample sizes for the actual data analysis. There were 19 self-report inventories for the Parent Attribution Test and the Attributional Style Questionnaire. The Revised Casual Dimension Scale II had only 18 available for analysis; one of the participants did not complete and return their questionnaire.

Attributional style was assessed qualitatively through the Film Based Attribution task and through the Alternate Coding System for the Revised Casual Dimension Scale II. A total of 48 Film Based Attribution responses were available for analysis. For the Alternate Coding of the Revised Casual Dimension Scale II there were 11 available for analysis. Of the 18 available for coding 7 of the participant responses provided insufficient information to rate attributional style.

Attachment and Coding of Spontaneous Attributions

The relationship between attachment and attributions were examined through the use of self-report inventories and also through tasks designed to allow for the coding the spontaneous attributions. Spontaneous attributions were examined in two ways. The first was by coding the responses mothers made to a question about a film that they watched about a child's experience in a hospital setting. All of the responses were coded for the presence of global versus specific attributions.

To examine the relationship between attachment and the global/specific attribution dimension on the Film Based Task a chi square test of independence was conducted, $X^2(2) = 12.0, p=.01$. The analysis revealed that a significant relationship existed between global/specific attributions and attachment. Table 3 displays the ratings of the responses for the
Film Based Attributions for the secure and insecure attachment classifications. The specific attributional rating was distributed equally between the secure and insecure groups. The important differences were in the rating of “no effect” and “global”. All of the secure mothers in the study believed that the event would have an effect on the child. This was not the case for the insecure mothers. Overall, 6 of the mothers from the insecure category perceived this situation as having no effect on the child. In fact, some of the insecure mothers reported that the situation would have a positive effect because it would teach the child to be independent. There were also important group differences for the “global” dimension. Secure mothers were the only participants to provide a response reflecting the global dimension. Conversely, none of the responses provided by insecure mother’s reflected this attributional dimension.

The rationale/reasons provided by participants for the Revised Casual Dimension Scale II (Alternate Coding System) was also assessed for the global/specific attribution dimension. A Fisher’s Exact test between the global/specific attribution dimension and attachment proved significant with an alpha level less than .01 for scenario #1. The global/specific ratings on scenario #2 and scenario #3 and attachment were not statistically significant. Refer to Table 4 for distribution of global/specific attributions across attachment categories.

Significant results were not obtained when the alternate coding system was applied to the CDS II for scenario #2 and #3 and attachment. A chi-square test of independence found the following; Scenario #2, \( X^2 (18) = 2.286, p < .319 \), and Scenario #3, \( X^2 (18) = 1.450, p < .484 \).

**Attachment and Self-Report Inventories of Attribution**

Three self-report inventories were administered: Parent Attribution Test, Attributional Style Questionnaire, and Revised Casual Dimension Scale II.

**Parent Attribution Test (PAT)**

The PAT assesses the parent’s perception of whether the child or the parent is responsible for caregiving failures. It therefore assesses parents (adults) perceived control (ACF) the child’s control over failures (CCF). A t-test for ACF and attachment, \( t (19) = -.031, p < .976 \), revealed that no significant relationship between attachment and adult perceived control over caregiving
failure was found. Similarly, no significant relationship was found for CCF category, t (19) = -1.226, p < .235 and attachment.

**The Attributional Style Questionnaire (ASQ)**

The ASQ assess attributional style in negative versus positive situations. A t-test was conducted on ASQ styles for positive situations and attachment; Internal/External, t (19) = -2.75, p < .786, Stable/Unstable, t (19) = .231, p < .820, Global/Specific, t (19) = -3.75, p < .713, all were not significant. Statistical analysis for the negative scenario’s and attachment were also found to be not significant; Internal/External, t (19) = .175, p < .863, Stable/Unstable t (19) = -.651, p < .523, Global/Specific, t (19) = -.393, p < .699.

**The Revised Casual Dimension Scale II (CDSII)**

The CDSII consists of 4 main attribution dimensions: Causal, Control, Stable, and Personal Control. The Global dimension was added to make a fifth attribution dimension. No significant relationship between scores on the CDS II dimensions and attachment were found. T-tests were conducted to examine the relationship between each dimension and attachment; Causal t (18) = .844, p < .410, Control t (18) = -.458, p < .653, Stable t (18) = .598, p < .557, Personal Control t (18) = .283, p < .780, and Global t (18) = 1.040, p < .312.

**Intercorrelations-Global/Specific Dimension**

The Global/Specificity attribution dimension was the only dimension that was assessed by most of the inventories used in the study. The only inventory that did not assess Globality/Specificity was the Parent Attribution Test. Moreover, the Film Based Attribution Task and the Alternate-coding scheme used for the Revised Casual Dimension Scale II only assessed Globality/Specificity. Pearson Product Correlation’s were conducted to identify the relationship between the global dimensions measured by each inventory and/or coding scheme. Please refer to Table 5. A significant correlation was found between the globality dimensions measured for the Film Based Attribution task and for the Alternate Coding System of the Revised Casual Dimension Scale II. A correlation was also found between the global dimensions measured by the Revised Casual Dimension Scale II, Scenario #2 only, and the positive scenarios on the
Attributional Style Questionnaire. The only other significant correlations for the global dimensions were found between for the three scenarios on the Revised Casual Dimension Scale II. The globality dimension for scenario's #3 and #1 and #3 and #2 were found to be significantly correlated.

The number of statistical analyzes administered does increase the probability of Type II error. Under ideal circumstances a Holting T-test would have been used to reduce the number of statistical tests needed. This test, however, was not used because more data is available on one of the levels of the dependent variables.
Discussion

The goals of the research were twofold. First, to examine the relationship between attributional style, as measured by self-report questionnaires, and attachment classifications. The second was to qualitatively assess attributional style in an interpersonal context and compare this with representations of attachment.

It was predicted that secure individuals would have a combination of an internal/external, stable, and global attributional style. The results revealed no significant relationship between any of the attributional dimensions, measured by self-report questionnaires, and secure attachment.

The findings were similar for the insecure attachment group. Although hypothesis were developed for each attachment classification the insecure subclassification (unresolved, dismissing, and preoccupied) were collapsed into one group for the purposes of data analysis. The predictions made for the preoccupied individuals did differ from those made for the dismissing group. Preoccupied individuals were expected to be external, stable, and global. Conversely, dismissing were expected to be internal, unstable, and specific. When these groups were combined into one insecure category and compared with each dimension of attribution, as measured by self-report questionnaires, no significant relationship was found.

As reported earlier the Parent Attribution Test does not assess attributional style along the same dimensions as the other inventories used in this study. It was expected that the results would support earlier research findings by Grusec and Mammone (1995) which found a relationship between scores on the PAT and attachment. It was hypothesized that secure mother's would accept responsibility for failures but balance this expectation with an understanding that the child, in some circumstances could also be responsible for caregiving failures. Conversely, the insecure parents lacked this equal consideration of the responsibility of both the parent and the child. It was hypothesized that preoccupied mothers would accept more responsibility for failures. Dismissing mother's were expected to accept little responsibility for failure, attributing it most often to the child. The results of this study found no evidence to support this relationship between attributional style and attachment. A possible explanation for this lack of research
findings might be the size of the sample studied. Possibly, a larger sample of completed inventories would have produced different results.

**Qualitative Assessment of Attributions and Attachment**

When attributions were qualitatively assessed in a context relevant to interpersonal relationships the results were significant. Attributions were qualitatively assessed in two ways; the first was through the Film-Based Attributions Task. Mother's responses in this task were coded for the presence of global versus specific responses. A relationship was found between the global/specific attributional dimension and attachment representations. Global/specific attributions were also qualitatively assessed post hoc through the Alternate Coding of the Revised Casual Dimension Scale II. The results of this analysis also revealed a significant relationship between global/specific attributions and representations of attachment. The results for the Revised Casual Dimension Scale II (alternate coding) and attachment were only significant for scenario #1. Overall, both qualitative assessments of attributional style, global/specific dimension, were significantly related to attachment. In both cases (Film based Attribution Task & Alternate Coding CDS II Scenario #1) only secure mother's made responses that reflected a global attributional style.

It was only when attributions were assessed in an interpersonal context that they were significantly related to attachment. Importantly none of the insecure mothers were rated as providing global responses. In terms of attachment theory this suggests that secure mothers made attributions that reflected a greater understanding of the range of possible consequences of the hospital experience on the child. It appeared as though secure mothers were able to consider a larger number of effects that went beyond the details and information provided in the movie or that were immediately relevant to the situation. For example, in addition to making an attribution that the experience might contribute to anxiety about being separated from the mother, they also considered how this distrust might lead to anger in the future. By contrast, none of the responses given by insecure mothers to the questions following the film reflected the same understanding of the implications of this experience on all areas of the child's life. They, unlike the secure mothers, were unable to consider behavioural or emotional responses that went beyond the immediate circumstances. Overall, this ability to make a wider array of attributions may be a
factor in what leads secure mothers to respond more sensitively as parents to their children’s emotional needs.

Surprisingly, the specific dimension did not differentiate the insecure/secure groups. The even distribution of this dimension among either category suggests that it may not be directly relevant to attachment security. Another possible explanation for this finding is that the definition of specificity employed in the study may have been too broad. The definition in the literature is directly connected to its use in attribution questionnaires and focuses on the specific event in question. This definition may not be differentiating the qualitative details necessary when assessing attributions in the context of attachment. It is plausible that that the way in which secure and insecure individuals conceptualize the specific effects of the situation onto the child are different. The coding system used was designed to differentiate between the types of effects recognized by the participants, whether they were global or specific. They were not designed to differentiate based on their perception of the implications of these effects on the child. Thus, the difference between the groups may not be in the effects they recognize but, in how they conceptualize the implications of these possible effects directly onto the child.

It is also possible that the specific dimension is not important when it is considered separately from the other attributional dimensions. It is plausible that the way in which an individual associates one dimension with the others is significant. The lack of available information on the internal/external or stable/unstable attributional dimensions made it difficult to collect reliable information. It is possible that the secure/insecure groups may differ from one another in the variables they associate with the specific dimension. In particular, do they perceive the specific effect they have identified as being present into the future (stable) or being a result of something they had control over (internal)? It may be that the information given about a particular dimension is more important in terms of how it relates to the other attributional dimensions. Overall, this may provide more useful information than would be available from one dimension.

**Relationship between Attachment and Attributions: Implications of the Findings**

Attribution theory and attachment theories are information-processing models that describe how cognition’s influence behaviour. The relationship observed between spontaneous attributions and attachment suggests that the cognitive schemas are related and may not operate
independently of one another. One plausible explanation for the relationship is that attributions may be influenced by an individual’s attachment style. Therefore, maybe the ability to spontaneously attribute a variety of causes/effects is related to having a secure attachment. This sensitivity may make them better prepared to deal with effects, circumstance, and manifestations as they arise, not only in themselves but also in the lives of their children.

The results were not consistent across the methodological approaches for studying attributional style. It was only when attributions were assessed in the context of interpersonal relationships those attributions were significantly related to attachment. This finding is important and may suggest that attributional style influences the types of strategies utilized in interpersonal contexts. Individuals rated as insecure do not have a consistent and successful strategy for gaining security. As attributions are also based on previous experiences it is plausible that they influence the way attachment relevant information is processed and therefore, subsequently acted upon. This connection may prove to be an important one in not only understanding how attachment patterns remain consistent across the lifespan but, also how they are transmitted between parents and their children.

**Methodological Issues with use of Questionnaires for Assessing Attributional Style**

The findings are significant in highlighting the benefits of a qualitative approach versus a questionnaire format in the assessment of attributions. The method of direct assessment of attributions used in this study is not consistent with the self-report format commonly employed in the literature. The results do suggest that there are some benefits to examining attributions as they occur in context. A qualitative analysis does allow the researcher to consider the knowledge and past experiences the participant used in the reasoning process. The typical questionnaire format does not allow the researcher to understand these elements because it is too restrictive and does not provide information about how questions were interpreted, and how final decisions were made.

The lack of a significant relationship between attributions as measured by the inventories, and representations of attachment could be attributed to the actual inventories. The use of self-report inventories may not be an effective means of assessing attributions relevant to parent-child relationships. Empirical investigations of attribution theory have relied heavily on the use of
self-report questionnaires to assess attributions (Miller, 1995). The shortcoming is this approach requires the respondent to choose a response from a predetermined set of possibilities. It does not allow for an assessment of the attributions that are automatically and naturally occurring. This distinction is important as it is possible that the respondents are choosing responses because they are made available in the choice selection and not because they actually occurred (Bagby, Atkinson, Dickens & Gavin, 1990; Miller, 1996). Miller (1995) and Bagby, Atkinson, Dickens & Gavin (1990) criticized this approach to studying attributions because it does not provide respondents with a set of open ended questions that could elicit they types of attributions that are spontaneously occurring.

The findings may have also resulted from problems associated the definition of attributional constructs. The global dimension was the only construct within the attribution literature that appeared the same across the majority of the inventories. Interrelations on this dimension revealed that they were unrelated. Importantly, this lack of a relationship was not evident for the coding systems developed for assessing global dimensions in the task assessing the Film Based Attributions and on the Alternate Coding System for the Revised Casual Dimension Scale II. The global constructs for the two coding systems were found to be related. This is important as it suggests that the definition of "globality" assessed in the coding systems were similar. Interestingly, the significant relationships between attachment and a qualitative measure of a construct versus a self report inventory is consistent with an earlier finding made by Cohen, Silver, Cowan, Cowan and Pearson (1992). In their study of attachment representations and quality of the marital relationship, home observations were more strongly related to AAI classifications then to self-report inventories used in the study. The authors suggest that the inventories may not be assessing the relevant interpersonal dynamics in the way that is possible through direct assessment & observation in the home.

The lack of a relationship between the attribution dimensions among the three inventories may also reflect the possibility that attributions are situation/event dependent. Thus suggesting that attributions are not a result of a predetermined pattern of thinking but, are flexible enough to vary according to the situation at hand. Research by Bagby, Atkinson, Dickens & Gavin (1990) investigated the attributional dimensions measured by theAttributional Style Questionnaire. The findings revealed little support for the presence of three attribution dimensions measured by the
questionnaire. The authors argued that the lack of findings might also reflect the notion that there is little cross-situational consistency for attributions.

The findings may also reflect a weakness in the inventories available to study attributions. Research by Bagby, et al (1990) investigated the attributional dimensions measured by the Attributional Style Questionnaire. The authors found no evidence to support the presence of three distinct attributional dimensions. As stated earlier the authors suggested that the measurement of attributions using hypothetical vignettes might not accurately capture actual attributions. The authors questioned whether a questionnaire that actually depicted real events in their lives might have produced different results. It should be noted that the Revised Casual Dimension Scale II was included in this study. This inventory differs from the ASQ because it allows for the researcher to customize the scenario provided to the participants. Scenario #1 did depict an event, inconsolable crying of a child, that most mothers have likely experienced. Despite the likely relevance of this vignette to real life situations, no significant relationship was found between attributional dimensions and representations of attachment.

**Alternate Coding of Revised Casual Dimension Scale II – Methodological Problems**

The significant relationship between attachment and the coding of responses on the Revised Casual Dimension Scale II were not found to be significant for all of scenario’s presented to the participants. Significant relationships between scenario’s #2 and #3 were not established. A possible explanation for this finding is that there were some methodological problems with these scenarios. The first methodological weakness concerns the content of the scenarios provided to the participants. The scenario’s required respondents to reflect on the reasons why their efforts in the caregiving context provided were unsuccessful. Many participants commented that they had difficulty imagining themselves behaving as described in the scenario. They therefore felt incapable of providing an accurate rationale/reason for something they would never do. The second methodological weakness concerns the clarity of the questions posed to participants following the scenario. In particular, participants were asked to provide a rationale or reason for their performance. Participants reported confusion about whether they were commenting on their behaviour in the scenario or why the caregiving situation described was a failure. As a result some respondents did not reflect on their performance but on the events in the scenarios.
A final concern about the scenario’s used for the Revised Casual Dimension Scale II #2 and #3 was that, unlike scenario #1, these described specific events that very possibly did not apply to all of the participants. They were more abstract and were not likely to be events that took place on a regular basis. Overall, upon further consideration of scenario’s #2 and #3 it was decided that the task demands were not as clear as they could have been and the content was too specific. This, therefore, may have significantly contributed to the lack of empirical findings.

**Suggestions for Future Research**

The notion of maternal sensitivity has been found to be an important contributor to the quality of attachment (Bowlby, 1969; Bretherton, 1995; Main, 1991; van IJzendoorn, 1995). The findings presented here suggest that an important aspect of this may be the mother’s ability to cognitively consider the ways in which her child has been effected by an event. In relation to attachment theory this may be relevant to how the mother understands how she must respond to her child’s distress, fear, or illness. Ultimately, her understanding of the cause of her child’s distress and the effects of this experience may influence the way she responds to her child’s bid for comfort and security. The ability to be cognitively flexible enough to consider a number of possible implications of an experience, may leave the mother prepared to respond sensitively and appropriately to her child’s difficulties as they arise. The findings may also provide some important information about the strategies that are used by insecure individuals in their bid for security. Attributions may provide some information about the types of strategies they employ and also those that they do not consider.

The results have provided preliminary evidence suggesting that attachment and attribution theories are related. Future research should continue to explore the usefulness of the qualitative approach to assessing attributions. Question format, information probes, and direct questioning might prove to be useful in uncovering attribution related information. Research efforts should generally focus on the types of open-ended questions that might illicit information about each attributional dimension.
Research will also need to closely examine the definitions of the attributional dimensions currently used in the research. Applying these definitions in the assessment of spontaneous attributions proved to be problematic. Overall, they were found to be restrictive and in some instances vague. Particular problems arose when operationalizing these definitions for methods that went beyond the typical self-report questionnaire format.
References


SECTION ONE

DIRECTIONS

1) Read each situation and vividly imagine it happening to you.
2) Decide what you believe would be the one major cause of the situation if it happened to you.
3) Write this cause in the blank provided.
4) Answer three questions about the cause by circling one number per question. Do not circle the words.
5) Go on to the next situation.

SITUATION 1: YOU MEET A FRIEND WHO COMPLIMENTS YOU ON YOUR APPEARANCE.

1) Write down the one major cause:

2) Is the cause of your friend's compliment due to something about you or something about other people or circumstances?

Totally due 1  2  3  4  5  6  7  Totally due to me
other people or circumstances

3) In the future when you are with your friend, will this cause again be present?

Will never again 1  2  3  4  5  6  7  Will always be present

4) Is the cause something that just affects interacting with friends, or does it also influence other areas of your life?

Influence just 1  2  3  4  5  6  7 Influences all situations in my life
this particular situation
SITUATION 2: YOU HAVE BEEN LOOKING FOR A JOB UNSUCCESSFULLY FOR SOME TIME.

5) Write down the one major cause: ____________________________
 ____________________________

6) Is the cause of your unsuccessful job search due to something about you or something about other people or circumstances?

<table>
<thead>
<tr>
<th>Totally due to other</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>Totally due to me.</th>
</tr>
</thead>
</table>

7) In the future when you look for a job, will this cause again be present?

<table>
<thead>
<tr>
<th>Will never again be present</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>Will always be present.</th>
</tr>
</thead>
</table>

8) Is the cause something that just influences looking for a job, or does it also influence other areas of your life?

<table>
<thead>
<tr>
<th>Influences just this particular situation</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>Influences all situations in my life</th>
</tr>
</thead>
</table>

SITUATION 3: YOU BECOME VERY RICH

9) Write down the one major cause: ____________________________
 ____________________________

10) Is the cause of your becoming rich due to something about you or something about other people or circumstances?

<table>
<thead>
<tr>
<th>Totally due to other people or circumstances.</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>Totally due to me.</th>
</tr>
</thead>
</table>

11) In your financial future, will this cause again be present?

<table>
<thead>
<tr>
<th>Will never again be present</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>Will always be present</th>
</tr>
</thead>
</table>
12) Is the cause something that just influences obtaining money, or does it also influences other areas of your life?

Influences just 1 2 3 4 5 6 7 Influences all situations in my life
this particular situation

SITUATION 4: A FRIEND COMES TO YOU WITH A PROBLEM AND YOU DON'T TRY TO HELP HIM/HER.

13) Write down the one major cause: __________________________

14) Is the cause of your not helping your friend due to something about you or something about other people or circumstances?

Totally due to other 1 2 3 4 5 6 7 Totally due to me.
people or circumstance.

15) In the future when a friend comes to you with a problem, will this cause again be present?

Will never 1 2 3 4 5 6 7 Will always be present
again be present

16) Is the cause something that just influences what happens when a friend comes to you with a problem, or does it also influence other areas of your life?

Influences just 1 2 3 4 5 6 7 Influences all situations in my life
this particular situation

SITUATION 5: YOU GIVE AN IMPORTANT TALK IN FRONT OF A GROUP AND THE AUDIENCE REACTS NEGATIVELY.

17) Write down the one major cause: __________________________

18) Is the cause of the audience's negative reaction due to something about you or something about other people or circumstances?

Totally due to other 1 2 3 4 5 6 7 Totally due to me.
people or circumstances
19) In the future when you give talks, will this cause again be present?

Will never again be 1 2 3 4 5 6 7 Will always be present

20) Is the cause something that just influences giving talks, or does it also influence other areas of your life?

Influences just 1 2 3 4 5 6 7 Influences all situations in my life

SITUATION 6: YOU DO A PROJECT THAT IS HIGHLY PRAISED

21) Write down the one major cause: ____________________________

22) Is the cause of your being praised due to something about you or something about other people or circumstances?

Totally due to other 1 2 3 4 5 6 7 Totally due to me

23) In the future when you do a project, will this cause again be present?

Will never again be 1 2 3 4 5 6 7 Will always be present

24) Is the cause something that just affects doing projects, or does it also influence other areas of your life?

Influences just 1 2 3 4 5 6 7 Influences all situations in my life

SITUATION 7: YOU MEET A FRIEND WHO ACT HOSTILELY TOWARDS YOU.

25) Write down the one major cause: ____________________________
26) Is the cause of your friend acting hostile due to something about you or something about other people or circumstances?

Totally due to other 1  2  3  4  5  6  7 Totally due to me

27) In the future when interacting with friends, will this cause again be present?

Will never again be 1  2  3  4  5  6  7 Will always be present

28) Is the cause something that just influences interacting with friends, or does it also influence other areas of your life?

Influence just 1  2  3  4  5  6  7 Influences all situations in my life

SITUATION 8: YOU CAN'T GET ALL THE WORK DONE THAT OTHERS EXPECT OF YOU

29) Write down the one major cause: ____________________________

30) Is the cause of your not getting the work done due to something about you or about other people or circumstances?

Totally due to other 1  2  3  4  5  6  7 Totally due to me

31) In the future when doing work that others expect, will this cause again be present?

Will never again be 1  2  3  4  5  6  7 Will always be present

32) Is the cause something that just influences doing work that others expect of you, or does it also influence other areas of your life?

Influences just 1  2  3  4  5  6  7 Influences all situations in my life
SITUATION 9: YOUR SPOUSE (BOYFRIEND/GIRLFRIEND) HAS BEEN TREATING YOU MORE LOVINGLY.

33) Write down the one major cause: ____________________________

34) Is the cause of your spouse (boyfriend/girlfriend) treating you more lovingly due to something about you or something about other people or circumstances?

Totally due to other 1 2 3 4 5 6 7 Totally due to me

35) In future interactions with your spouse (boyfriend/girlfriend), will this cause again be present?

Will never again 1 2 3 4 5 6 7 Will always be present

36) Is the cause something that just influences how your spouse (boyfriend/girlfriend) treats you, or does it also influence other areas of your life?

Influences just 1 2 3 4 5 6 7 Influences this particular situation
Influences all situations in my life

SITUATION 10: YOU APPLY FOR A POSITION THAT YOU WANT VERY BADLY (E.G., IMPORTANT JOB, GRADUATE SCHOOL ADMISSION, ETC.) AND YOU GET IT.

37) Write down the one major cause: ____________________________

38) Is the cause of your getting the position due to something about you or something about other people or circumstances?

Totally due to other 1 2 3 4 5 6 7 Totally due to me

39) In the future when you apply for a position, will this cause again be present?

Will never again 1 2 3 4 5 6 7 Will always be present
40) Is the cause something that just influences applying for a position, or does it also influence other areas of your life?

Influences just 1  2  3  4  5  6  7 Influences all situations in my life
this particular situation

Situation #11 YOU GO OUT ON A DATE AND IT GOES BADLY

41) Write down the one major cause: ____________________________________

42) Is the cause of the date going badly due to something about you or something about other people or circumstances?

Totally due to 1  2  3  4  5  6  7 Totally due to me
other people or circumstances

43) In the future when you are dating will this cause again be present?

Will never again 1  2  3  4  5  6  7 Will always be present
be present

44) Is the cause something that just influences dating, or does it also influence other areas of your life?

Influences just 1  2  3  4  5  6  7 Influences all situations in my life
this particular situation

Situation #12 YOU GET A RAISE

45) Write down the one major cause: ________________________________

46) Is the cause of your getting a raise due to something about you or something about other people or circumstances?

Totally due to 1  2  3  4  5  6  7 Totally due to me
other people or circumstances
47) In the future on your job, will this cause again be present? Will never 1 2 3 4 5 6 7 Will always present

48) Is this cause something that just affects getting a raise, or does it also influence other areas of your life?

<table>
<thead>
<tr>
<th>Influences just this particular situation</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td>Influences all situations in my life</td>
<td></td>
<td></td>
<td></td>
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Appendix B

Parent Attribution Test

In this questionnaire, we want to know how important you believe different factors might be as potential causes of successful and unsuccessful interaction with children. We are interested in discovering the way people think about children -- there are no right or wrong answers.

Example: If you were teaching a child an outdoor game and he or she caught on very quickly, how important do you believe these possible causes would be?

a. how good he or she is in sports in general
b. how good a teacher you are
c. how easy the game is

Answer the following questions by making ratings in the same way as shown above.

1. Suppose you took care of a neighbor's child one afternoon, and the two of you had a really good time together. How important do you believe the following factors would be as reasons for such an experience?

a. whether or not this was a 'good day' for the child, e.g., whether there was a TV show s/he particularly wanted to see (or some other special thing to do)
d. how lucky you were in just having everything work out well
e. how much the child enjoys being with adults
f. how pleasant a disposition the child had
g. how well the neighbor had set things up for you in advance
h. whether the child was rested
(The next question asks about **bad** experiences with children. Reasons for good interactions are not necessarily the same as those for unsuccessful ones. So please think about this situation without regard for the way you answered the first question.)

2. Suppose you took care of a neighbor's child one afternoon, and the two of you did **not** get along well. How important do you believe the following factors would be as possible reasons for such an experience?

<table>
<thead>
<tr>
<th>Options</th>
<th>not at all important</th>
<th>very important</th>
</tr>
</thead>
<tbody>
<tr>
<td>b. how unpleasant a disposition the child had</td>
<td>0 1 2 3 4 5 6</td>
<td></td>
</tr>
<tr>
<td>c. whether the child was tired or not feeling too well</td>
<td>0 1 2 3 4 5 6</td>
<td></td>
</tr>
<tr>
<td>d. whether or not you really enjoy children that much</td>
<td>0 1 2 3 4 5 6</td>
<td></td>
</tr>
<tr>
<td>f. whether or not this was a bad day for the child, e.g., whether there was nothing good on TV, whether it was raining and he or she couldn't go outside</td>
<td>0 1 2 3 4 5 6</td>
<td></td>
</tr>
<tr>
<td>i. whether you used the wrong approach for this child</td>
<td>0 1 2 3 4 5 6</td>
<td></td>
</tr>
<tr>
<td>j. the extent to which the child was stubborn and resisted your efforts</td>
<td>0 1 2 3 4 5 6</td>
<td></td>
</tr>
<tr>
<td>k. how you get along with children in general</td>
<td>0 1 2 3 4 5 6</td>
<td></td>
</tr>
<tr>
<td>m. what kind of mood you were in that day</td>
<td>0 1 2 3 4 5 6</td>
<td></td>
</tr>
<tr>
<td>q. how hungry the child was</td>
<td>0 1 2 3 4 5 6</td>
<td></td>
</tr>
<tr>
<td>t. how little effort the child made to take an interest in what you said or did</td>
<td>0 1 2 3 4 5 6</td>
<td></td>
</tr>
<tr>
<td>u. the extent to which you were not feeling well on that day</td>
<td>0 1 2 3 4 5 6</td>
<td></td>
</tr>
<tr>
<td>z. whether or not this was a bad day for you in general</td>
<td>0 1 2 3 4 5 6</td>
<td></td>
</tr>
</tbody>
</table>
Appendix C
Revised Causal Dimension Scale II

Directions

Please read each of the scenario’s carefully and then answer the questions that follow.

Scenario One

Your baby is unable to sleep through the night. She has been waking up every two hours crying. You respond by checking if your baby is hungry or requires a diaper change. When these two attempts fail you decide to hold your baby and rock her back and forth in a nearby chair. Your response has not reduced your baby’s crying.

Indicate a reason or reasons for your performance:

Instructions: Think about the reason or reasons you have written above. The items below concern your impressions or opinions of this cause or causes of your performance. Circle one number for each of the following questions.

Is the cause(s) something:

1. That reflects an aspect of yourself        9 8 7 6 5 4 3 2 1 reflects an aspect about the situation
2. Manageable by you                      9 8 7 6 5 4 3 2 1 not manageable by you
3. Effects all situations in your life      9 8 7 6 5 4 3 2 1 effects only this situation
4. Permanent                             9 8 7 6 5 4 3 2 1 temporary
5. You can regulate                       9 8 7 6 5 4 3 2 1 you cannot regulate
6. Will impact all areas of your life      9 8 7 6 5 4 3 2 1 impact only this area of your life
7. Over which others have control         9 8 7 6 5 4 3 2 1 over which others have no control
8. Inside of you                          9 8 7 6 5 4 3 2 1 outside of you
9. Stable over time                       9 8 7 6 5 4 3 2 1 variable over time
10. Under the power of other people 9 8 7 6 5 4 3 2 1 not under the power of other people
11. Something about you 9 8 7 6 5 4 3 2 1 something about others
12. Over which you have power 9 8 7 6 5 4 3 2 1 over which you have no power
13. Influences all aspects of your life 9 8 7 6 5 4 3 2 1 Influences only this aspect of your life
14. Unchangeable 9 8 7 6 5 4 3 2 1 changeable
15. Other people can regulate 9 8 7 6 5 4 3 2 1 other people cannot regulate

Scenario Two

Your child is lying in their play pen, surrounded by a number of toys. You are nearby and you hear your child cry. You decide that you are too busy to respond to your child and you keep going about your work. Your child continues to cry.

Indicate a reason or reasons for your performance:

________________________________________________________________________
________________________________________________________________________
________________________________________________________________________

Instructions: Think about the reason or reasons you have written above. The items below concern your impressions or opinions of this cause or causes of your performance. Circle one number for each of the following questions.

Is the cause(s) something:

1. That reflects an aspect of yourself 9 8 7 6 5 4 3 2 1 reflects an aspect about the situation
2. Manageable by you 9 8 7 6 5 4 3 2 1 not manageable by you
3. Effects all situations in your life 9 8 7 6 5 4 3 2 1 effects only this situation
4. Permanent 9 8 7 6 5 4 3 2 1 temporary
5. You can regulate 9 8 7 6 5 4 3 2 1 you cannot regulate
6. Will impact all areas of your life 9 8 7 6 5 4 3 2 1 impact only this area of your life
7. Over which others have control 9 8 7 6 5 4 3 2 1 over which others have no control
8. Inside of you 9 8 7 6 5 4 3 2 1 outside of you
9. Stable over time 9 8 7 6 5 4 3 2 1 variable over time
10. Under the power of other people 9 8 7 6 5 4 3 2 1 not under the power of other people
11. Something about you 9 8 7 6 5 4 3 2 1 something about others
12. Over which you have power 9 8 7 6 5 4 3 2 1 over which you have no power
13. Influences all aspects of your life 9 8 7 6 5 4 3 2 1 Influences only this aspect of your life
14. Unchangeable 9 8 7 6 5 4 3 2 1 changeable
15. Other people can regulate 9 8 7 6 5 4 3 2 1 other people cannot regulate

**Scenario Three**

You are out visiting family with your baby. While at your parent’s home you decided to help your mother prepare a meal and you leave your baby in the care of your younger sister and the family dog who appear to be watching the child intently. You leave the room and are gone for only a few seconds when you hear your baby start to cry. You respond by running into the next room and frantically picking up your baby. There is no evidence of harm or a particular cause for your baby’s crying. You are so distressed by what has happened that you begin to cry yourself. You decide that the baby will not be out of your sight for the rest of the day. You stop everything that you are doing to be near your baby. Your response had not reduced your baby’s crying.

Indicate a reason or reasons for your performance:

________________________________________________________________________
________________________________________________________________________
________________________________________________________________________

**Instructions:** Think about the reason or reasons you have written above. The items below concern your impressions or opinions of this cause or causes of your performance. Circle one number for each of the following questions.

Is the cause(s) something:

1. That reflects an aspect of yourself 9 8 7 6 5 4 3 2 1 reflects an aspect about the situation
2. Manageable by you 9 8 7 6 5 4 3 2 1 not manageable by you
3. Effects all situations in your life 9 8 7 6 5 4 3 2 1 effects only this situation
4. Permanent 9 8 7 6 5 4 3 2 1 temporary
5. You can regulate 9 8 7 6 5 4 3 2 1 you cannot regulate
<table>
<thead>
<tr>
<th>Number</th>
<th>Description</th>
<th>Rating Range</th>
<th>Additional Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>6</td>
<td>Will impact all areas of your life</td>
<td>9 8 7 6 5 4 3 2 1</td>
<td>impact only this area of your life</td>
</tr>
<tr>
<td>7</td>
<td>Over which others have control</td>
<td>9 8 7 6 5 4 3 2 1</td>
<td>over which others have no control</td>
</tr>
<tr>
<td>8</td>
<td>Inside of you</td>
<td>9 8 7 6 5 4 3 2 1</td>
<td>outside of you</td>
</tr>
<tr>
<td>9</td>
<td>Stable over time</td>
<td>9 8 7 6 5 4 3 2 1</td>
<td>variable over time</td>
</tr>
<tr>
<td>10</td>
<td>Under the power of other people</td>
<td>9 8 7 6 5 4 3 2 1</td>
<td>not under the power of other people</td>
</tr>
<tr>
<td>11</td>
<td>Something about you</td>
<td>9 8 7 6 5 4 3 2 1</td>
<td>something about others</td>
</tr>
<tr>
<td>12</td>
<td>Over which you have power</td>
<td>9 8 7 6 5 4 3 2 1</td>
<td>over which you have no power</td>
</tr>
<tr>
<td>13</td>
<td>Influences all aspects of your life</td>
<td>9 8 7 6 5 4 3 2 1</td>
<td>Influences only this aspect of your life</td>
</tr>
<tr>
<td>14</td>
<td>Unchangeable</td>
<td>9 8 7 6 5 4 3 2 1</td>
<td>changeable</td>
</tr>
<tr>
<td>15</td>
<td>Other people can regulate</td>
<td>9 8 7 6 5 4 3 2 1</td>
<td>other people cannot regulate</td>
</tr>
</tbody>
</table>
Appendix D

**FILM BASED ATTRIBUTIONS**

Not Codeable  Insufficient evidence to make a decision or the participant does not Answer the question.

No Effect on Child- The mother feels that the experience will have no effect on the child in the film. The participant might also suggest that the experience was positive.

Specific- Any effects of the child’s experience in hospital are specific to the mother-daughter relationship. In particular the child will be described as having difficulty separating from her mother. A specific response may also discuss fear of doctors or hospitals. The child might be described as clingy, fearful of being alone, worried about her mother leaving her.

Global- If the participant mentions effects that go beyond those considered specific. This means the participant discusses ways, in addition to separation anxiety and fear of doctors, that the child is affected by the experience. These could include: the child being less affectionate (to people other than the mother), rejection of food, nightmares, wanting to be on her own, independent, lack of confidence, being angry, or reserved with her mother in the future.
Appendix E

ALTERNATE CODING FOR THE REVISED CASUAL DIMENSION SCALE II

Not Codeable   Insufficient information to make a judgement.
Specific       The participant’s rationale is specific to the scenario presented specific to the situation presented.
Global         The participant’s response reflects not only the specific situation but they attempt to justify, explain, or understand why they acted the way they did.

Scenario #1

Specific – Repeats the step of strategies they are using to comfort the baby. The steps they are using suggests that they are continuing to comfort the baby.

Global – The participant attempts to find cause. They eliminate possibilities as to why the baby is crying. They may suggest they are not in tune with the baby.

Scenario #2

Specific – They give a justification for their performance that is specific to the scenario. For example they have things to do, they spent time with the child earlier.

Global - The provide a justification as to why they need to complete a task or why their child would cry in response to their turning their attention away from the child.

Scenario #3

Specific – They are not sure why they responded that way. Overall, they suggest they don’t know what happened. They suggest that this lack of knowledge is the reason why they behaved the way they did.

Global – They give reasons to justify their behaviour. They try to justify their behaviour.
### Table 1

**Descriptive definitions of Attachment Theory and Attribution Theory**

<table>
<thead>
<tr>
<th>Attachment Theory</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bretherton 1988</td>
<td>&quot;The relative safety or danger of a situation and an attachment figure’s availability and responsiveness are, according to Bowlby (1969/1982), not appraised completely a fresh every time” Pg. 11.</td>
</tr>
<tr>
<td>Bretherton 1988</td>
<td>&quot;As a conceptual metaphor the term “internal working model” has several advantages. First the adjective “working” draws attention to the dynamic aspects of representation. By operating on mental models, an individual can generate interpretations of the present and evaluate alternative course of future action” Pg. 12</td>
</tr>
<tr>
<td>Bowlby, 1980</td>
<td>“A second feature of a modern theory of perception is that sensory inflow can be processed outside a person’s awareness to a stage sufficient for much of its meaning to be determined. Thereafter it can influence his subsequent behavior, including his verbal responses, without his being aware of it.” Pg. 47.</td>
</tr>
<tr>
<td>Bowlby 1980</td>
<td>&quot;...an analytical mechanism exists that performs a series of tests outside awareness on all incoming messages.” Pg. 49</td>
</tr>
<tr>
<td>Bowlby 1980</td>
<td>&quot;The recognition of pattern as it occurs during perception proceeds in two directions simultaneously. On the one hand, the arrival of a sensory stimulus triggers an automatic series of analyses that start at the sense organs and continue centrally far up the chain of processing stages. On the other hand and simultaneously, the situation in which the sensory events are occurring triggers expectations based on past experience and general knowledge. These expectations produce conceptually driven processing in which guesses are made about what the input probably means. As the two forms of processing merge the guesses are checked against the data and the task competed.” Pg. 47</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Attribution Theory</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kelly, 1972</td>
<td>&quot;attributions consist of a culmination of cause and effect experiences (event relationships). These form mental schema's which filter ongoing events. The mental representations make it unnecessary to form a complex analysis of cause and effect relationships in every circumstance. The schema's allow for an unconscious search for the causal schemata which closely represents the event trying to be explained.”</td>
</tr>
<tr>
<td>Kelly, 1972</td>
<td>&quot;Once a schema is learned it may be activated by an event that closely resembles it. This schema is then used as a basis for making a decision of the cause and effect relationships.”</td>
</tr>
</tbody>
</table>
Table 2

Comparison of the Means for each Insecure Group for the Self-Report Questionnaires

<table>
<thead>
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<th>Dismissing</th>
<th>Preoccupied</th>
<th>Unresolved</th>
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<tr>
<td>Parent Attribution Test</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Uncontrollable</td>
<td>5.87</td>
<td>4.33</td>
<td>5.0</td>
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<tr>
<td>Adult Control of Failure</td>
<td>4.65</td>
<td>4.73</td>
<td>4.56</td>
</tr>
<tr>
<td>Child Control of Failure</td>
<td>3.95</td>
<td>4.93</td>
<td>4.56</td>
</tr>
<tr>
<td>Attributional Style Questionnaire</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Negative Internal/External</td>
<td>3.90</td>
<td>4.30</td>
<td>4.06</td>
</tr>
<tr>
<td>Negative Stable/Unstable</td>
<td>3.90</td>
<td>3.80</td>
<td>4.16</td>
</tr>
<tr>
<td>Negative Global/Specific</td>
<td>3.50</td>
<td>3.16</td>
<td>4.43</td>
</tr>
<tr>
<td>Positive Internal/External</td>
<td>4.67</td>
<td>5.46</td>
<td>5.00</td>
</tr>
<tr>
<td>Positive Stable/Unstable</td>
<td>4.65</td>
<td>5.43</td>
<td>5.16</td>
</tr>
<tr>
<td>Positive Global/Specific</td>
<td>5.07</td>
<td>5.66</td>
<td>5.56</td>
</tr>
<tr>
<td>Revised Casual Dimension Scale II</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Causal</td>
<td>5.87</td>
<td>4.33</td>
<td>5.00</td>
</tr>
<tr>
<td>Control</td>
<td>3.56</td>
<td>3.52</td>
<td>2.84</td>
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<tr>
<td>Stable</td>
<td>4.22</td>
<td>3.34</td>
<td>2.52</td>
</tr>
<tr>
<td>Personal Control</td>
<td>6.10</td>
<td>6.70</td>
<td>5.50</td>
</tr>
<tr>
<td>Global</td>
<td>5.30</td>
<td>2.81</td>
<td>3.62</td>
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</table>
Table 3

Relationship Between Attributional Rating, (Global, Specific, No Effect) According to Attachment Classification for the Film Based Attribution Task

<table>
<thead>
<tr>
<th></th>
<th>No Effect</th>
<th>Specific</th>
<th>Global</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Secure</td>
<td>0</td>
<td>18</td>
<td>6</td>
<td>24</td>
</tr>
<tr>
<td>Insecure</td>
<td>6</td>
<td>18</td>
<td>0</td>
<td>24</td>
</tr>
</tbody>
</table>
Table 4

Relationship Between Attributional Rating, (Global, Specific) According to Attachment Classification on the Revised Casual Dimension Scale II Alternate Coding

<table>
<thead>
<tr>
<th></th>
<th>Specific</th>
<th>Global</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Secure</td>
<td>7</td>
<td>3</td>
<td>11</td>
</tr>
<tr>
<td>Insecure</td>
<td>11</td>
<td>0</td>
<td>11</td>
</tr>
</tbody>
</table>
Table 5

Intercorrelations of the Globality Dimension Across Measurement Approaches

<table>
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<tr>
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<th>NEG ASQ</th>
<th>POS ASQ</th>
<th>CDS Sc. #1</th>
<th>CDS Sc. #2</th>
<th>CDS Sc. #3</th>
<th>Film Attrib.</th>
<th>Alter CDS</th>
</tr>
</thead>
<tbody>
<tr>
<td>NEG ASQ</td>
<td>1.000</td>
<td>0.162</td>
<td>0.118</td>
<td>0.129</td>
<td>0.276</td>
<td>0.053</td>
<td>-0.192</td>
</tr>
<tr>
<td>POS ASQ</td>
<td>0.162</td>
<td>1.000</td>
<td>0.273</td>
<td>0.404*</td>
<td>0.210</td>
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<td>0.075</td>
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<td>CDS Sc. #1</td>
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<td>0.304</td>
<td>0.441*</td>
<td>0.198</td>
<td>0.037</td>
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<tr>
<td>CDS Sc. #2</td>
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<td>0.404*</td>
<td>0.304</td>
<td>1.000</td>
<td>0.468**</td>
<td>-0.137</td>
<td>-0.179</td>
</tr>
<tr>
<td>CDS Sc. #3</td>
<td>0.276</td>
<td>0.210</td>
<td>0.441*</td>
<td>0.468**</td>
<td>1.000</td>
<td>-0.167</td>
<td>-0.359*</td>
</tr>
<tr>
<td>Film Attrib.</td>
<td>0.053</td>
<td>-0.078</td>
<td>0.198</td>
<td>-0.137</td>
<td>-0.167</td>
<td>1.000</td>
<td>0.378*</td>
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</table>

**p < .01   *p < .05