

THE PENNSYLVANIA STATE UNIVERSITY
SCHREYER HONORS COLLEGE

DEPARTMENT OF PSYCHOLOGY

MATERNAL PREDICTIONS AND PROTECTIVE BEHAVIORS: EFFECTS ON
CHILD SHYNESS

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SPRING 2013

A thesis
submitted in partial fulfillment
of the requirements
for a baccalaureate degree
in Psychology
with honors in Psychology

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ABSTRACT

Child fearful and inhibited behaviors have been implicated in the later development of anxiety related problems and research has found that maternal protective behaviors can exacerbate this risk. Mothers who engage in protective behavior often report their children as vulnerable and high in fearful behavior – and these reports are not always accurate. The purpose of this study was to examine the effect that maternal protective behaviors have on the relationship between maternal predictions of child fearfulness and the observation of child shyness in a laboratory setting. I predicted that higher maternal protection would be evident in mildly threatening contexts in the lab when mothers predicted that their child would be fearful during the lab episode compared to less maternal protection when mothers predict low child fear. Further, when mothers predict higher child fear and engage in more protection, there will be more observed child fearful behaviors during the laboratory episode compared to when mothers predict lower child fear and engage in less protective behavior. Results partially support the hypotheses. The study provides further evidence for the important relationship between protective parenting and its impact on fearfulness in children.

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ACKNOWLEDGEMENTS

I would like to extend my heartfelt thanks to several people whose assistance was vital to this endeavor and is very much appreciated. First, I would like to say thank you to Dr. Buss for extending a helping hand whenever I needed one and allowing me to get involved in your lab during the last two years. I have learned so much about the research process and the development of a quality project, and I could not have completed my thesis without your wise guidance. Second, I want to deeply thank Sunghye Jen Cho for her invaluable support, guidance, and teaching throughout this process. I greatly admire your attention to detail, work ethic, and organization, and I am immensely grateful for the time and effort that you put into helping me with my research project. Last, I would like to thank the other graduate students in Dr. Buss's lab, particularly Meghan Scrimgeour, for assisting me with various tasks in the lab, such as locating relevant research articles and methods descriptions. Thank you all for all of your support, wisdom, and guidance!

Chapter 1

Introduction

Childhood psychopathology and its development is a pressing topic in the current literature. Eisenberg and colleagues (1996) discuss internalizing symptoms in childhood as being linked to problems with social skills, negative emotions, and anxiety, while externalizing symptoms in childhood are linked to inappropriately uninhibited behaviors and lack of self-control. Many models exist for explaining the cause, transmission, and development of child psychopathology. Childhood anxiety is highly prevalent (Wood et al., 2003). Recently, research has turned to examining various family processes within a biological-environmental framework as possible explanations for such problems (Dadds & Roth, 2001). There are many proposed factors that contribute to the risk and vulnerability for developing anxiety spectrum disorders and other related symptoms below clinical diagnostic levels. This study seeks to examine parental influences as factors that may increase the risk for the development of anxious symptoms in childhood.

Research has shown that individual variation in fearful temperament (e.g., behavioral inhibition) characterized by shy and wary behavior in the face of novel situations, especially when stable over time, are related to the presence of anxiety-related symptoms and the development of anxiety disorders later in childhood (Buss, 2011; Hirshfeld et. al, 1992; Schwartz et. al, 1999). External factors may also play a role in a child's vulnerability to and development of anxiety symptoms. For example, parental

influences have been shown to be important to understanding the development and manifestation of socio-emotional adjustment and anxious symptoms in childhood.

According to Wood et al. (2003), both parenting styles and parenting behaviors have been examined within the literature with respects to their roles in helping develop or maintain anxiety in children. Protective or over-involved parenting in particular has been linked to children's shy, wary, and anxious behaviors (Bayer, Sanson, & Hemphill, 2006; Lieb et al., 2000). Parental "psychological control" behaviors (Barber & Harmon, 2002; Rapee, 1997), specifically overprotective and over controlling behaviors, have been prominent in the literature exploring their relationship to child internalized and anxious symptoms (Rubin, Burgess, & Hastings, 2002). Additionally, it has been shown that certain other maternal protective behaviors correlate positively with child wary behaviors (Kiel & Buss, 2010) and reluctance to socially engage (Rubin, Cheah, & Fox, 2001).

Given the significance of parenting behaviors on the regulation of fear and shyness in childhood, the current study seeks to examine the association between maternal overprotectiveness and children's shy and distress responses in fear-eliciting laboratory situations. More specifically, this study explores those protective behaviors as potential moderators of the relationship between mothers' predictions of her child's fearful behaviors and her child's observed behaviors during moderate threat contexts in the lab.

Parental Influences

Protective Parenting

Recent research has supported a moderate, but significant, effect of maternal protective behaviors and overprotection on child fearful temperament and anxious symptoms. Bayer et al. (2006) write, “Over-involved/protective parenting shields children from natural life challenges and opportunities to develop skills for managing difficulties.” Drawing from Parker (1983), the researchers note specific behaviors such as intrusion, encouragement of dependence, and exclusion of outside influences as examples of restrictive, overprotective parenting practices (Bayer et al., 2006). Because of the intrusive nature of protective and overprotective maternal behaviors, they may inhibit a child’s independent strategies for emotion regulation and coping with novel, possibly fearful, situations.

Maternal protection behaviors may also facilitate a dependency of children on their mothers to alleviate child fear and distress during threat situations. The stability of fearful and shy behaviors in childhood has been shown to be correlated to maternal protective behaviors (Coplan, Arbeau, & Armer, 2008; Kiel & Buss, 2010). Further, research has supported the idea of a reinforcement cycle in which children act in a way that is perceived by their mother as fearful and distressed, which solicits maternal protective or intrusive behavior. The protective behaviors serve to relieve the distress of the child, which is reinforcing both to the child (so that the child learns to depend on his mother and solicit her protection when distressed) and to the mother, who will likely respond in similar, protective ways the next time her child becomes distressed (Dadds &

Roth, 2011; Kiel & Buss, 2012). Theoretically, during novel situations that are moderately stress-inducing, parents who are appropriately supportive and sensitive to their child's emotions without responding in an intrusive, protective manner allow their child to independently regulate his own distress and emotions and learn to cope with novel situations (Kopp, 1989).

Research has supported a connection between mothers' predictions of children's fearful and shy response to novel situations and mothers' engagement and frequency of protection behaviors. Rubin et al. (1997) found that mothers who had rated their toddlers to be more wary or shy in an unfamiliar social situation were more likely to engage in unnecessary intrusive/controlling behaviors and protective and shielding behaviors with their children. According to their review of the literature, Burgess et al. (2001) speculate that children who are found to be behaviorally inhibited and shy have parents who evaluate their children's behaviors and in turn act in overprotective, controlling, and intrusive ways. They note that this could be problematic for children and their ability to develop coping mechanisms, stress management, and regulatory skills when confronted with novel and possibly fear-eliciting situations. For this reason, examining mothers' ability to accurately predict their children's behaviors is important to understanding the development and possible maintenance of childhood anxiety problems.

Maternal Accuracy

Kiel and Buss (2012) indicate that maternal accuracy, mothers' perceptions and assessments of children's behaviors, is an important factor that may be linked to overall

child fearful temperament. Their findings, along with others (Hastings & Rubin, 1999) suggest that mothers who are more accurate in predicting reticence, shyness, and fearful behaviors in their young children in novel situations are more likely to respond with protective behaviors; they are therefore more likely to maintain fearful or anxious child behaviors because the protection alleviates the stress of the child and negatively reinforces solicitation of more protection. Kiel and Buss (2010) found that mothers' accurate perceptions and predictions of child fearfulness strengthen the relationship between maternal engagement in protective behaviors and fearful child temperament. The current study examines this relationship, assessing the accuracy with which mothers predict their children's fearful behaviors in novel laboratory episodes. It also looks at observed maternal protective behaviors and analyzes how they influence the association between maternal predictions and observed child behavior.

Maternal Perceptions of Her Own Behavior

In addition to an observational measure of maternal protectiveness, the current study utilized a reliable self-report measure to assess overprotective and solicitous behaviors. Not only were mothers' observed behaviors measured and coded within a laboratory setting, but their perceptions of their own behaviors in hypothetical situations with their children were also used to measure maternal protection. The New Friends Vignettes (NFV) parental self-report (McShane & Hastings, 2009) is meant to gauge how parents predict they would react in social situations when their child is acting shy or inhibited. Previous studies have indicated that the constructs measured on the NFV

(overprotection, critical control, and appropriate support) represent facets of psychological control (Hudson & Rapee, 2001; Rubin, Burgess, & Hastings, 2002).

On the NFV, parents are asked to rate themselves on these characteristics and the likelihood that they would engage in psychologically controlling behaviors when their children hypothetically display inhibited behaviors in social situations. In particular relevance to this study, items meant to assess maternal overprotectiveness asked parents about behaviors that would restrict child's approach or engagement behaviors, encourage or maintain child shyness, unnecessarily provide shielding or comfort, etc. These behavior descriptions are similar to the ways that the current study observationally measured maternal protectiveness, so the NFV reports served a comparative function in a secondary analysis where they were tested as a moderator in place of the protective observational coding.

The Current Study

The present study aims to examine the relationship between maternal predictions of child behaviors in a fearful situation and observed child behaviors. In addition, the study explores whether or not maternal behaviors, specifically protection, moderate this relationship (see Figure 1). I am interested in discovering if there is a relationship between maternal predictions of child fearfulness in mildly threatening episodes and the protective behaviors she engages in, and whether or not those protective behaviors influence the relation between mothers' predictions of how her child will act and how the child actually acts in the lab. Maternal protection was measured in two different ways in

the current study: 1) as mothers' perceptions of her behavior and 2) as observed behavior (i.e. what mothers report they would do in a situation and what they actually do).

Maternal perceptions of her own behaviors were measured using the overprotection score from NFV due to the demonstrated correspondence between NFV self-reported behaviors and observed parental behaviors (McShane & Hastings, 2009).

Based on the research presented above, the hypotheses of this study are as follows:

- I. If mothers predict higher wariness or crying behaviors from their child during a threat episode, they will engage in more protective behaviors.
- II. I predict that there will be more observed child shyness and distress in the cases where mothers predict higher child wariness and crying (and subsequently engage in more protective behaviors) than when mothers predict lower child wariness.
- III. I anticipate that maternal protectiveness will moderate the link between maternal predictions of child behavior and observed child behavior. Specifically, I predict there to be a stronger relationship when mothers engage in more protection behaviors. I believe this interaction should hold true using both observed measures of protection and self-report measures.

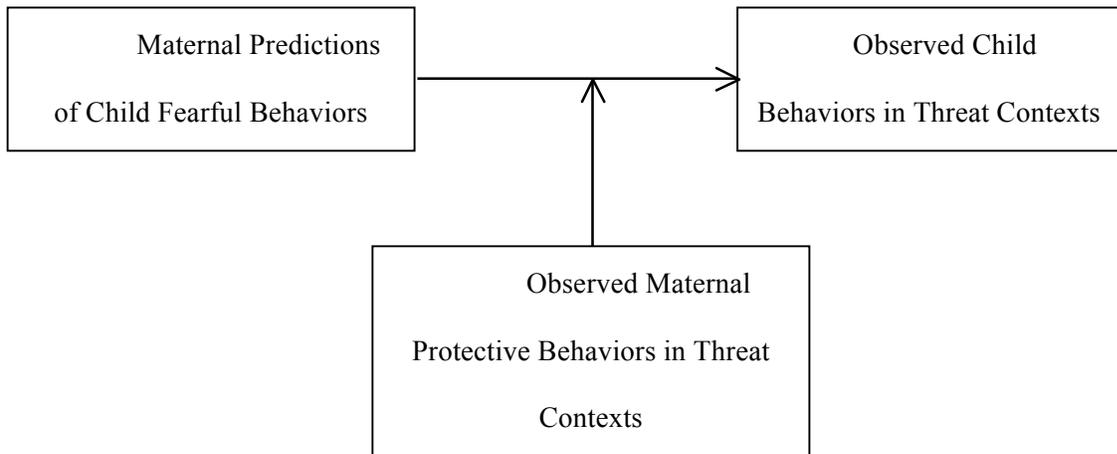


Figure 1 Theoretical model of the hypothesized relationship among variables.

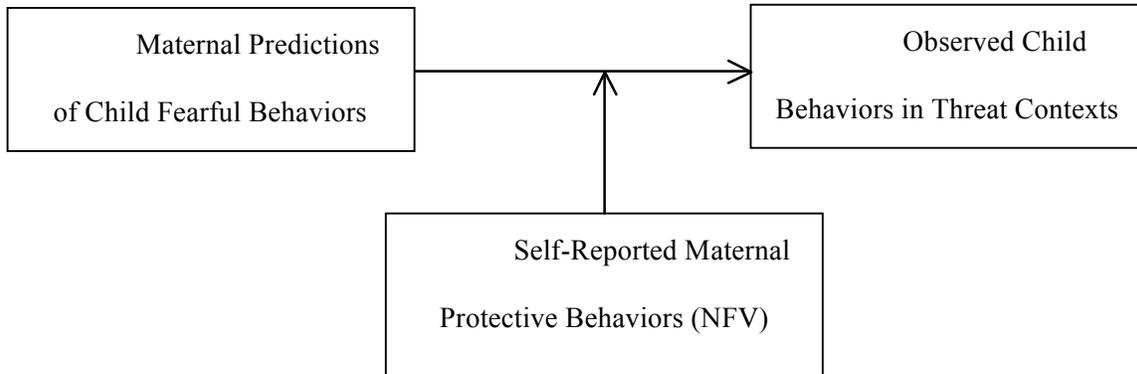


Figure 2 Theoretical model using self-report maternal protection as a moderator.

Chapter 2

Methods

Participants

The participants in the present study consisted of 124 toddlers (62 girls and 62 boys) and, primarily, their mothers. There was one case in which the father was present with the toddler. The toddlers and their parents were recruited through mailings for a larger, longitudinal study. Examination of socioeconomic status showed the majority of the sample was considered middle class. The majority of the participants were also Caucasian (90.4%). The remaining breakdown consisted of Asian American families (6.4%), American Indian families (1.6%), African American families (0.8%), and Hispanic families (0.8%). The present study analyzed data collected during a laboratory visit at toddler age 2.

Procedure

At age toddler age 2, mothers and toddlers were asked to come to the lab and participate in a series of activities meant to elicit varying degrees of toddler fear in response to novel stimuli (Buss & Goldsmith, 2000). Six threat episodes were conducted: robot, spider, stranger working, stranger approach, clown, and puppet show. Mother and child were both present in the room for all of the episodes. Mothers were instructed by an experimenter to start the episodes with the child in her lap, and to

proceed through the episodes acting and responding as she naturally would with her child. In robot and spider episodes, the novel stimulus (a toy robot or a furry spider body mounted on a remote-control car, respectively) sat on the floor in the opposite corner of the room from where mother and child were sitting. After the experimenter left the room, the toy would spontaneously begin to move through the remote controlling of an unseen researcher. In the stranger episodes, an experimenter would enter the room where the toddler and his/her mom were sitting and either spend a few minutes “working,” (writing in a clipboard), or approach the child and ask simple questions about the child’s day, what toys they were playing with, etc.

The current study used the clown and puppet show episodes. During the clown episode, an experimenter dressed in a clown costume would enter the room with a series of toys and invite the child to interact with her and play with the toys. In the puppet show episode, an experimenter positioned behind a puppet show display put on a puppet show for the child that included several interactive components (e.g., puppets asking the child to pick up the ball that they dropped and requesting that he/she return it to them).

Lab visits were video recorded and undergraduate researchers were trained on the specific coding schemes for each observed construct measured. Research assistants then coded the videos for the behaviors of interest. Interrater reliabilities were calculated between the undergraduate coders.

Measures

Parental Protective Behaviors

During the episodes, maternal behaviors were coded including comforting, controlling/intrusiveness, involvement, and protective behaviors (Kiel & Buss, 2010). Intensity ratings were given for each category every 10-second interval. In the current study, maternal protective behaviors were the main focus. Protective behaviors were scored by intensity; each 10-second epoch, each mother was scored 0 through 3 (e.g., 0 – exhibits no protective behavior, 1 – demonstrates slight protective behavior of “quality” of protection, 2 – demonstrates moderate protective behavior that is clear but brief, 3 – demonstrates prolonged or intense protective behavior). Examples of 1 protective behaviors include briefly covering the child’s eyes or the mother using her arms as a barrier between the child and the stimulus. Examples of 2 protective behaviors would be mothers picking up their child in an effort to shield or protect them from the stimulus or orienting the child away from the stimulus. Examples of 3 protective behaviors would be a mother engaging in 2 protection for a long period of time or mothers actively ending the episode by leaving the room in response to the stimulus. Maternal protective behaviors were coded by undergraduate research assistants while watching video recordings of the episodes with an interrater reliability of kappa 0.6 to 0.69.

Child Behavior During Threat Episodes

Using a global coding scheme, child behaviors were recorded during the threat episodes by undergraduate research assistants. The constructs of focus in the present study were “shyness” and “distress.” Puppet show and clown episodes were video recorded, then watched and coded by undergraduate researchers. Each episode was viewed and then assigned a global code for both shyness and distress. Shyness behaviors included inhibition, withdrawal from the stimulus, hiding their face, avoidance, etc. Distress behaviors were coded as negative facial affectivity, such as fearful or sad facial expressions, and negative vocalizations, like crying or whimpering. These codes ranged from 1, meaning little to no evidence of the behavior, to 5, indicating the occurrence of the behavior in high intensity and for long duration.

Intra-class correlation coefficients (ICC) were calculated between undergraduate coders and checked by a master coder for reliability. When discrepancies in coding arose, if the difference between two intensity codes was 1 (e.g. the first coder coded a 1 for a specific behavior while the second coder coded a 2) the higher of the two codes was used. If the discrepancy was larger than 1, that episode was reviewed and rescored. ICC calculated for observed child shyness during the clown episode was 0.75, and during puppet show it was 0.88. ICC calculated for observed child distress during clown and puppet show episodes were 0.53 and 0.59, respectively.

Maternal Predictions of Child Behavior

In the current study, mothers' perceptions of how her child would react in various threat-inducing situations (the six episodes described above) were recorded in a self-report pre-episode interview, based on the structured interview described by Goldsmith and Rothbart (1991). During this interview, mothers were asked questions meant to gauge their estimates of how their children would behave during the fear-eliciting episodes in the lab. For example, for the clown episode, mothers were asked questions such as, "How likely is it that your child will: Approach the clown? Cry or fuss? Talk to the clown? Be wary of fearful of the clown?" etc. Mothers' responses were coded using a 4-point scale, 1 – Definitely Yes, 2 – Probably Yes, 3 – Probably No, 4 – Definitely No. Therefore, a 4 indicates that the mother believes the particular behavior is definitely not likely, and a 1 indicates that she believes the behavior is definitely likely. The constructs of focus in this study were wariness and crying, meant to logically correspond to shyness and distress measures in child global coding, respectively.

New Friends Vignettes

In order to assess mothers' perceptions of their own behaviors during situations with their children that are potentially fear inducing, the current study used the New Friend Vignettes (NFV) self-report measure (McShane & Hastings, 2009). This measure asks the child's mother to report how she would react to a hypothetical situation in which her child is placed in a novel, social situation, given that they child is displaying signs of shyness/anxiousness. Items are used to gauge levels of three specific domains of

maternal behavior: overprotectiveness, critical control, and appropriate support. For the purposes of the current study, mothers' scores for overprotectiveness were the construct of focus. This variable was chosen due to its compatibility with the 'protective' behaviors coded in the lab setting, and due to reliability demonstrated between maternal self-reported behaviors and observed behaviors within a lab setting. Items on the NFV meant to examine maternal overprotectiveness were specified as, "parental actions which interfere with the child's opportunities to function independently" (McShane & Hastings, 2009).

Chapter 3

Results

Initial correlation analyses were conducted between three variables: caregiver behavior, maternal predictions of child fear (measured as “wariness” and “crying”), and global measures of observed child fearful behaviors (measured as “shyness” and “distress”). A linear regression was then conducted in order to examine the interaction between maternal predictions of child wariness and maternal protective behaviors as they predicted observed child shyness in clown. Table 1 displays the descriptive statistics for each of the measured variables. Table 2 shows relevant inter-correlations between variables within puppet show and clown episodes.

Summary of Correlations

A significant correlation was found between maternal predictions of child wariness in puppet show and the average protection mothers engaged in. Because of the way that maternal prediction of child wariness was scored (high ratings indicate that child is not at all likely to engage in that behavior, low ratings indicate that child is very likely to engage in the behavior), the correlation was negative. This signifies that when mothers predicted higher amounts of wariness, they engaged in more protective behaviors. Although it was hypothesized that maternal predictions of child fearfulness would predict protection, there were no significant correlations found between maternal predictions of

child crying and maternal protection behaviors, nor were there significant interactions relating maternal predictions and her subsequent protection behaviors to observed child fearful behaviors in the puppet show episode.

A significant association was found between maternal predictions of child crying behaviors and observed child shyness in clown, indicating that when mothers predicted a higher likelihood of child crying behaviors in clown, there was higher observed child shyness during the episode. However, no significant relationship was found between maternal predictions of child crying and maternal protection behaviors.

Interestingly, associations were found between maternal protective behaviors and the amount of child shyness and distress in both clown and puppet show episodes. This means when mothers engaged in higher protection, their children were much more likely to display signs of distress and shyness.

Summary of Regression Analysis

Following correlation calculations, a linear regression was computed to test the significance of an interaction between maternal predictions of child wariness and maternal protection as predictors of observed child shyness in the clown episode. Specifically, the interaction was to test the hypothesis that high engagement in maternal protection would moderate the relationship between maternal predictions and observed child behaviors. The regression analysis was significant ($F = 554.38, p = .02$) and is summarized in Table 3. As predicted, the interaction between maternal protection and prediction of wariness was significant. This moderated relationship is depicted in Figure

3. The dashed line represents mothers who predicted high child wariness during the clown episode. For these mothers, when they engaged in high levels of protection behavior, children were observed to display higher levels of shyness than when they engaged in low levels of protection.

Contrary to what was predicted, there were no significant associations found between observed maternal protection in puppet show and clown and the self-report NFV measure for overprotection. Additionally, there were no associations found between the NFV measure and maternal predictions of wariness or crying. Because of these findings, no interaction was tested using the NFV overprotection measure.

Table 1 Summary of Descriptive Statistics for All Variables

Variables	N	Mean	SD	Min	Max
Wariness Prediction in Clown	124	2.14	.67	1	4
Wariness Prediction in Puppet Show	125	2.84	.67	1	4
Crying Prediction in Clown	123	2.98	.70	1	4
Crying Prediction in Puppet Show	125	3.18	.65	1	4
Maternal Protection in Clown	123	.07	.14	.00	.84
Maternal Protection in Puppet Show	123	.10	.16	.00	.95
Child Shyness in Clown	124	2.12	.89	1	4
Child Shyness in Puppet Show	124	1.94	.75	1	5
Child Distress in Clown	124	1.45	.69	1	4
Child Distress in Puppet Show	124	1.40	.78	1	5

Note: For maternal protection measurements, the descriptive statistics are displayed for the raw variable. Correlations and regression analysis were computed after square-root transformation and mean centering. All other variables are presented in raw form, but were mean centered for analysis.

Table 2 Summary of Correlations between Maternal Predictions, Maternal Observed Protection, and Observed Child Fearfulness in Clown and Puppet Show

Variables	1.	2.	3.	4.	5.
1. Wariness Prediction	—	NA	-.19*	-.19*	-0.03
2. Crying Prediction	NA	—	-.13	-.23*	-.13
3. Maternal Protection	-.22*	-.16	—	.43**	.53**
4. Child Shyness	-.12	-.10	.52**	—	.52**
5. Child Distress	-.08	-.13	.51**	.59**	—

Note: * $p < .05$, ** $p < .01$. Clown correlations appear above the diagonal and Puppet Show correlations appear below the diagonal.

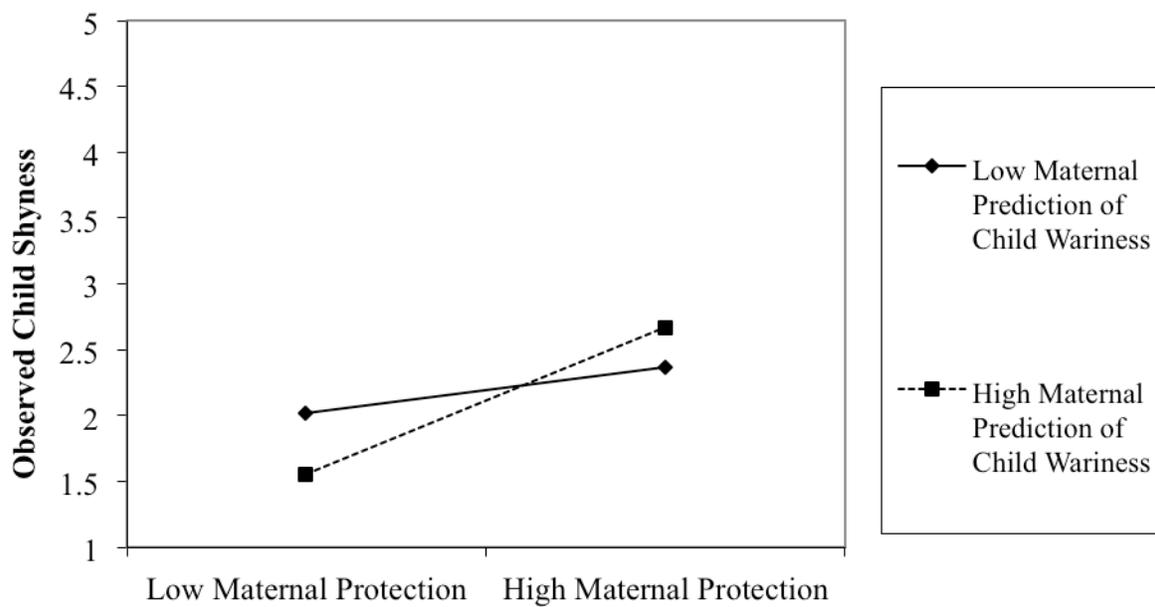
Table 3 Regression Analysis for Interaction between Maternal Wary Predictions and Maternal Protection Predicting Child Shyness in Clown

Variable	R ²	Δ R ²	β	t
Step 1	.97	.01		
Wariness Prediction			-.17	-2.28*
Maternal Protection			.93	3.75**
Step 2	.97	.00		
Wariness Prediction			-.09	-1.13
Maternal Protection			1.01	4.25**
Wariness Prediction x Maternal Protection ^a			1.21	2.32*

Note: * p < .05, ** p < .01.

^a Predictor: Interaction term of maternal predictions of child wariness and maternal protection

Figure 3 Maternal Protection Moderating the Relationship Between Maternal Predictions of Child Wariness and Observed Child Shyness in Clown



Chapter 4

Discussion

Extant literature has determined a need for the better understanding of protective parenting and the implications it carries for anxious and shy outcomes in children. Research has also supported a link between overprotective/over solicitous parenting practices and the maintenance of fearful and inhibited behaviors in children (Bayer et al., 2006; Lieb et al., 2000). Thus, the present study examined the role of maternal protection in moderating the relationship between maternal predictions of child wariness and crying and observed child shyness and distress.

The results from this study provide further evidence to the existing literature concerning maternal predictions of child fearfulness, maternal engagement in protection, and the effects on actual observed child fearful behaviors. Associations were found between maternal predictions of both wariness and crying and the observation of child shyness in one of the two episodes. This means that when mothers predicted their children to show more signs of wariness or crying and fussing, the children were more likely to actually display more shyness behaviors. This supports the findings of Kiel and Buss (2010) in that measuring maternal accuracy is important as it relates to protective parenting and child fearfulness; however, it also highlights the variability in maternal accuracy as the associations in clown were not found to be true for maternal predictions made about the puppet show episode. However, the findings from the clown episode lend support to the importance of maternal accuracy in mildly threatening episodes as mothers were shown to accurately predict signs of behavioral inhibition.

In both puppet show and clown episodes, maternal predictions of child wariness were correlated with maternal protection. When mothers predicted their children to be wary in both episodes, they subsequently engaged in more protective behaviors. This finding is in concordance with the literature (Burgess et al., 2001; Rubin et al., 1999), which support the relation between mothers' predictions of wary/inhibited child behavior in novel situations and their likelihood to engage in overprotection.

This study found moderate associations between maternal engagement in protection and observed child shyness and distress. In both episodes, when mothers engaged in more protective behaviors, their children were much more likely to demonstrate behavioral displays of shyness and distress. These associations provide further evidence to support the findings of other studies (Coplan, Arbeau, & Armer, 2008; Kiel & Buss, 2010) which show that protective behaviors, while intended to end child distress and stop them from being upset, may actually cultivate a situation of negative reinforcement for the child to continue soliciting protection. When a child displays distress or fear, mothers may be more likely to respond with protective behaviors. Because the child's stress and fear were alleviated, the child is reinforced to continue seeking mom's protection in the future. This repeated response by mothers could diminish the child's ability to develop self-regulation coping skills, thus maintaining a cycle of child fearfulness and the solicitation of maternal protection (Dadds & Roth, 2001).

The significant interaction also conforms to previously established findings in the literature. In the present study, maternal protection moderated the relation between maternal predictions of child wariness and observed child shyness when mothers

predicted high wariness during the clown episode. When mothers predicted high child wariness but engaged in low protection, observed child shyness behaviors were relatively low. However, when mothers predicted high wariness *and* subsequently engaged in more protective behaviors, there was significantly higher observed child shyness. Kiel and Buss (2012) found similar relationships when examining the effect of maternal accuracy on the association between fearful child temperament and maternal protection. Specifically, when mothers were accurate in predicting their children's fear, the connection between fearful temperament and maternal protective behaviors is stronger.

Limitations and Future Work

The limitations of this study are mainly concerned with the effective measurement of each of the variables. Lack of accuracy in mothers' predictions could be due to an inconsistency between the questions and the behaviors that were coded from the observation. While there were two significant correlations between maternal predictions of child behavior and observed child fearful behavior, the prediction variables (wariness and crying) were not described in the same way as the outcome variables (shyness and distress). Shyness and distress were chosen specifically as outcome measures due to their logical correspondence to wariness and crying as predictor variables. However, to more precisely assess the accuracy of maternal predictions, specific language describing behaviors could be included in the pre-episode interview for moms as well as in the coding scheme for child behavior coding. For example, expanding child behavior coding to include specific behaviors like crying or operational definitions of wariness, and

keeping the descriptions of prediction and outcome variables consistent from pre-episode interview to child coding, may affect the overall assessment of maternal accuracy.

There may also have been discrepancies between the two different measures of maternal protection (NFV overprotection and observed maternal protectiveness). Despite evidence that NFV measures correlate to actual maternal behaviors (McShane & Hastings, 2009), no significant correlations between NFV overprotection scores and observed maternal protection in the lab were detected in the present study. This could be because the NFV measures ask mothers to report about hypothetical situations in which their child is in an overall social setting with unfamiliar peers. This type of setting, as described in the NFV, may differ qualitatively from the puppet show and clown episodes. Children may be familiar with the concept of a clown with toys or an interactive puppet show, and this type of situation may differ importantly from a situation in which a child is expected to interact with peer strangers. In future studies, a self-report measure that correlates more specifically to the lab episodes of focus could be administered to parents to gauge protective behaviors in a way other than direct observation.

Chapter 5

Conclusion

It is clear from the literature that there is a need for unraveling the complex processes that may contribute to childhood fearfulness, as fearful temperament and behaviors have been implicated in the possible development of later anxiety problems. A large focus in the research has been on examining the effects of parental factors, such as overprotectiveness in parenting, on the displaying and maintenance of child fearful behaviors. The current study adds to this knowledge base by providing further evidence to support the interplay between maternal predictions of child fearfulness, her likelihood of engaging in protective behaviors, and observed child fear/inhibition in a lab setting. Further examination of this and similar relationships is important to understanding the factors contributing to anxious childhood psychopathologies.

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ACADEMIC VITA

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Education

B.A., Psychology, 2013, The Pennsylvania State University, University Park, PA

Achievements

- Schreyer Honors Scholar
- Member of the Paterno Liberal Arts Fellows Program
- Member of Phi Kappa Phi Honor Society, The Pennsylvania State University Chapter
- Dean's List, The Pennsylvania State University, seven of seven semesters

Volunteer Experience/Involvement

- College Friend Volunteer for The Second Mile; Fall 2011 – Fall 2012
- Adult education tutor for the Central Pennsylvania Institute of Science and Technology;
Fall 2012
- Co-organizer of the Pinwheels for Prevention student campaign benefiting Prevent Child
Abuse Pennsylvania; Spring 2012
- Rules and Regulations Committee member; THON 2012
- Morale Committee member; THON 2011

Research Interests

My research interests broadly focus in child and family development. I have a particular interest in understanding parenting styles and practices, and the influences they have on child outcomes. I think that family relationships and dynamics are extremely complex, and I enjoy learning about how the family system contributes to child development and more specifically, how and why children develop psychopathology.