ABSTRACT

        A study investigated the relationship among four
possible mechanisms for children's socialization of emotion: (1)
mothers are essentially modeling the expression of emotion; (2)
mothers' emotions serve a coaching function; (3) the affective
environment to which a child is exposed may impact general
social-emotional competence; and (4) mothers' reactions to childrens'
emotions may form an important foundation of children's
social-emotional competence. Emotions of 48 mothers and children were
assessed. Subjects were 23 boys and 25 girls, with a mean age of 44
months. The first measure was nonverbal, and the second, which was
used a year after the first, was verbal. Reactions to peers' negative
emotions were observed in preschool, and social competence in
preschool was assessed by teachers and peers. Findings revealed that
less angry mothers had children who were more balanced. Children who
demonstrated greater comprehension of emotional situations were
older, with less angry mothers. Children who experienced more
happiness and tenderness at the time of the first measure found it
easier to verbalize their emotions a year later. Children who were
less neutral toward mothers and had less apprehensive mothers coped
better with negative peer reactions. Socialization of emotion
variables predicted most general indices of social-emotional
development. (SAK)

Socialization of Emotion: Pathway to Preschoolers' Affect

Regulation and Emotion Knowledge?

Susanne A. Denham

Michael Casey

Leslie Grout

Christine Alban

George Mason University

2

For some time, I have been interested in preschoolers'
social-emotional development. In particular, I have been
impressed with their substantial knowledge of emotions, their
nonrandom, often sophisticated responses to other persons'
emotions, and their growing ability to regulate their own
emotional expressions. In earlier research I have demor.trated
interrelations among these aspects of young children's emotional
understanding and expression, as well as establishing that these
emotional developments are related to peer and teacher
evaluations of preschoolers' general social-competence.

But, an important, unanswered question remains. What are
the effects of differing parental socialization on these aspects
of preschoolers' emotional development? In the investigation
that I would like to report on today, the emphasis will be on the
emotions shown by mothers, and their reactions to their
children's emotions, during structured and unstructured play. I
will provide evidence supporting the assumptions that these
aspects of socialization affect several parts of preschoolers'
social-emotional competence: their own expression of emotions,
understanding of emotions, reactions to peers' emotions, and more
general social-emotional competence (as assessed by both teachers
and peers).

I would like to focus on four possible mechanisms of
socialization of emotion (and credit Amy Halberstadt for helping
to clarify my own thinking on these points). First, mothers are
essentially modeling the expression of emotion. Emotional
displays are highly salient to their preschoolers, and mothers'
particular profiles of expressed emotions may teach children

3

which emotions are acceptable and appropriate in specific situations, and how to express them. It is thus expected, for example, that maternal positive emotions will be related to children's positive emotions, and that maternal negative emotions will be related to children's.

Second, the emotions which mothers express serve a coaching function; that is, emotionally expressive mothers allow their children the freedom to learn much about emotional expressions, and the situations in which basic emotions are typically shown. However, mothers' over-expression of negative emotions may be so aversive and anxiety-provoking that children exposed to this may learn little about emotions.

Third, the overall affective environment to which a child is exposed, particularly if it is consistently negative, may impact general social-emotional competence. For example, children whose mothers are often angry or sad may have difficulties with issues of friendliness, independence, and initiative (as evaluated by teachers), and may be perceived by peers as less likable, because of their emotional dysregulation.

Fourth, because mothers' <u>reactions</u> to their children's emotions also are highly salient to children, these may form an important foundation of children's social-emotional abilities. For example, mothers who respond optimally to children's various emotions may have happier children who cope with their own and others' emotions more capably in the peer arena.

To assess the relations among these variables, we coded the emotions of 48 mothers and their preschooolers (23 boys and 25

girls, mean age = 44 mos), using a previously developed exhaustive and mutually exclusive system, which focuses on facial, vocal, and behavioral manifestations of discrete emotions. These emotions were expressed by mothers and children during free play, structured play, and picture book reading sessions. Data for each discrete emotion (i.e., happiness, sadness, anger, apprehension, tenderness, neutral and "other") were expressed as percentages of each dyad members' total number of emotional events over the whole observation period (M = 103 min). Observer reliability is good for the whole system. The dyadic interaction was predominantly neutral/positive for the group as a whole (as might be expected in a laboratory experience, where both mother and child are on their best behavior), but there was adequate variation across the discrete emotions to proceed with correlational analyses.

Children's social cognitive understanding of the basic emotions happiness, sadness, anger, and fear was asssessed via two puppet measures. In the first, children nonverbally
E.G.
identified emotional situations. In the second (administered one year after the assessment of dyadic interaction), children verbally enumerated the possible causes of puppets' emotions. The number of causes given for happiness, sadness, anger, and fear expressions was used in subsequent analyses.

Children's reactions to their peers' negative emotions (i.e., sadness, anger, fear, and pain) were observed in their preschool classroom. The aggregate of behaviors used in these analyses included the sum of helping and concern responses, minus just looking at or ignoring peers' distress.

Children's social competence in the preschool was assessed by teachers and peers. Teachers completed the Baumrind Q-Sort (the score reported on here is an aggregate of its friendliness, cooperativeness, independence, purposefulness, and assertiveness scales), and peers performed an adaptation of Asher et al's picture sociometric technique.

Lag sequential analyses were run to identify contingent emotional responding. These analyses made possible the specification of probabilities for varying emotional responses to dyad partners' emotions. For the group as a whole, mothers and children did indeed respond nonrandomly to each others' emotions (i.e., more or less than expected given the base rate of the response emotion). These lawful contingencies were expressed in z-scores. z-score aggregates of _appropriate_ maternal reactions to each child emotion were created. Although the content of each such aggregate differed somewhat across child emotions, optimal maternal reactions were generally seen as calm, positive, possibly tender, but not sad, angry, or tense responses.

Next, in order to address this study's main questions, we formulated an analytic strategy. Thus, in our first set of multiple regression equations, our criterion variables were the child's emotions (e.g., affective balance, or the standard score difference between prevalence of happiness and anger, an aggregate which we have used in previous studies with good results). In each multiple regression equation, age and gender were entered on the first step, so that all socialization variables' predictions would hold with these demographic

6

variables already partialled. Then prevalence of maternal emotions were entered stepwise on the next step, with all indices of optimal maternal reactions to child emotions entered in stepwise fashion on the last step. Using this strategy, we sought to specify the predictive power of the maternal affective environment, and mothers' contingent emotional reactions to children, over and above the overall prevalence of their emotions.

In the overhead, we can see that less angry mothers, and those who reacted optimally to their children's apprehension (i.e., by being tender, calm, or smiling encouragingly, but not responding sadly, angrily, or apprehensively themselves), had children who were more "balanced" (i.e., more happy and less angry) themselves. For child sadness, in the next overhead, we see that angrier, sadder, less happy mothers had sadder children. Thus, both mothers' expressed emotions and reactions to child emotions, especially negative maternal emotions and maternal reactions to child negative emotions, predicted children's own regulation of emotional expression.

To predict the child's understanding of emotions, reactions to peers' emotions, and the teacher and peer measures of social competence, the same analytic strategy was used, except that prevalence of child emotions was entered in stepwise fashion after age and gender, so that we could argue for socialization effects on children's social-emotional competencies, over and above effects of their own emotions. Thus, in the next overhead, we see that children who demonstrated greater comprehension of emotional situations were older, with less angry mothers. In

7

fact, subsidiary analyses pinpoint the nature of errors made by children with angrier mothers: They were more likely to confuse happy and negative situations, an already developmentally inappropriate error.

One year after dyadic situations were videotaped, children talked about the causes of emotions. Those who had shown more happiness and tenderness earlier were more fluent in their discussion of basic emotions' causes. Perhaps feeling secure and emotionally positive is an important aspect of engaging in in-depth discussions about emotions.

With respect to reactions to peers' negative emotions, children who were less neutral with mother (i.e., showed a more rich pattern of expressiveness themselves), and who had less apprehensive mothers, reacted more actively and prosocially to peers' negative emotion. Other subsidiary analyses have suggested to us that the functional meanings of maternal and child neutrality differed in the dyadic situations: It was useful to have a calm mother, but some chlid neutrality seemed associated with "stilling" in the face of maternal sadness and apprehension. Thus, such constraint perhaps generalized to the peer situation. Further, we again see the negative effect of maternal negative emotion on another aspect of social-emotional competence.

Last, the most general indices of social-emotional development, the teacher and peer ratings, also were predicted by socialization of emotion variables. The Baumrind teacher ratings' aggregate was predicted by optimal maternal reactions to

child anger (i.e., calmness, an encouraging smile, but no sadness or apprehension, answering anger, or coddling tenderness) and to child happiness (i.e., mothers' matching happiness, and not reacting negatively to it). Overall peer likability, in the next overhead, was logically predicted by the child's own lack of anger, but over and above this, by maternal tenderness and lack of maternal sadness, as well as by optimal maternal reaction to the child's sadness (i.e., tenderness, not happiness or negative response).

Although it is important to remember that effects are bidirectional in dyadic systems (e.g., difficult children elicit negative parental emotion!), we have attempted to minimize this problem in this last set of equations by partialling out child emotion variables before entering maternal socialization variables. Our findings support and extend earlier research on the negative child correlates of maternal sadness and anger, especially, and the positive correlates of maternal tenderness and happiness. Moreover, socialization of emotion via not only maternal expressed emotions, but also maternal reactions to children's emotions, is related to children's own expressed emotions, and also to their understanding of emotions, and social-emotional competence.

Descriptive Data, Maternal and Child Emotions

| | Mother | | | Child | |
	M	SD		M	SD
Happy	.214	.063		.218	.063
Sad	.015	.024		.017	.018
Angry	.018	.019		.031	.029
Apprehensive	.047	.070		.098	.045
Tender	.026	.030		.016	.020
Neutral	.653	.131		.607	.058

Note. Data represent proportion of emotion events for each dyad member.

Maternal Contingencies After Child Emotions

	Maternal Emotions					
Child Emotions	Happy	Sad	Angry	Apprehensive	Tender	Neutral
Happy	2.76	---	-2.46	-3.76	---	---
Sad	-3.50	---	---	---	---	3.35
Angry	-3.57	---	4.21	3.07	---	---
Apprehensive	-5.85	---	---	---	---	6.27
Tender	---	---	---	---	11.22	-2.53
Neutral	---	---	2.30	---	---	-3.86

Note. Data reflect sum Z tests at $p \leq .05$.

Child Contingencies After Maternal Emotions

Child Emotions

Maternal Emotions	Happy	Sad	Angry	Apprehensive	Tender	Neutral
Happy	---	-2.30	-4.57	-6.60	---	6.90
Sad	---	4.35	---	---	4.91	-2.32
Angry	-1.98	---	5.28	---	---	---
Apprehensive	-4.61	---	---	-2.07	---	5.75
Tender	---	---	---	---	3.56	---
Neutral	---	---	---	4.16	---	-5.01

Note. Data reflect sum Z tests at $p \leq .05$.

12

Prediction of Child Affective Balance

Step	Predictor	Beta[a]	R^2
1	Age	ns	ns
	Gender		
2	Maternal Anger	-.66***	.669***
3	Maternal Reaction to Child Fear	.33**	.733***

[a] Significance reported at variable's entry.

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

Prediction of Child Sadness

Step	Predictor	Beta[a]	R^2
1	Age	ns	ns
	Gender		
2	Maternal Anger	.60***	.633***
	Maternal Sadness	.45***	.757***
	Maternal Happiness	-.28**	.803***
3	Maternal Reactions	ns	ns

----

a

    Significance reported at variable's entry.

*   **   ***

$p < .05.$ $p < .01.$ $p < .001.$

14

Prediction of Child Tenderness

Step	Predictor	Beta[a]	R^2
1	Age	ns	ns
	Gender		
2	Maternal Apprehension	-.41 **	.420 **
3	Maternal Reaction to Child Happiness	-.48 ***	.629 ***
	Maternal Reaction to Child Apprehension	-.46 ***	.755 ***

---

[a] Significance reported at variable's entry.

* p < .05.　　** p < .01.　　*** p < .001.

Prediction of Child Neutrality

Step	Predictor	Beta[a]	R^2
1	Age	ns	ns
	Gender		
2	Maternal Happiness	.60***	.650***
	Maternal Apprehension	.48***	.789***
	Maternal Sadness	.32***	.858***
3	Maternal Reaction to Child Happiness	-.19*	.876***

---

[a] Significance reported at variable's entry.

*   p < .05.   **   p < .01.   ***   p < .001.

Prediction of Emotion Knowledge

Step	Predictor	Beta ^{a}	R^2

Situations

Step	Predictor	Beta ^{a}	R^2
1	Age	.35 *	.360 *
	Gender	.11	
2	Child Emotion	ns	ns
3	Maternal Anger	-.32 *	.478 **
4	Maternal Reactions	ns	ns

Causes

Step	Predictor	Beta ^{a}	R^2
1	Age	.32 *	.342 +
	Gender	.13	
2	Child Happiness	.35 *	.480 **
	Child Tenderness	.27 *	.548 **
3	Maternal Emotion	ns	ns
4	Maternal Reactions	ns	ns

---

^{a} Significance reported at variable's entry.

+   *   **   ***
   $p < .10$. $p < .05$. $p < .01$. $p < .001$.

Prediction of Prosocial Reactions to Peers' Negative Emotions

Step	Predictor	Beta [a]	R^2
1	Age	ns	ns
	Gender	ns	
2	Child Neutral	-.41**	.495**
3	Maternal	-.34*	.572**
	Apprehension		
4	Maternal Reactions	ns	ns

[a] Significance reported at variable's entry.

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

Prediction of Baumrind Aggregate

Step	Predictor	Beta[a]	R^2
1	Age	.16	.353*
	Gender	.32*	
2	Child Emotion	ns	ns
3	Maternal Emotion	ns	ns
4	Maternal Reaction to Child Anger	.45***	.557***
	Maternal Reaction to Child Happiness	.25*	.608***

Note. Baumrind Aggregate = Friendliness + Independence +

Assertiveness + Purposefulness + Cooperativeness; girls higher.

[a]   Significance reported at variable's entry.

*   **   ***
   p < .05.   p < .01.   p < .001.

Prediction of Sociometric Likability

Step	Predictor	Beta[a]	R^2
1	Age	-.18	.439**
	Gender	.40**	
2	Child Anger	-.32*	.543***
3	Maternal Sadness	-.44***	.683***
	Maternal Tenderness	.28*	.732***
4	Maternal Reaction to Child Sadness	.31**	.783***

Note. Girls higher.

[a] Significance reported at variable's entry.

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