

Children's Narrative Theories  
of Characters' Emotions in a Movie Story \*

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\* This paper is a revision of a presentation made to a  
Symposium on Fostering Children's Narrative Competency,  
Canadian Society for the Study of Education.

Halifax, Nova Scotia, May 31, 2003

### Abstract

The purpose of this study was to develop a cognitive development model of children's narrative theories of characters' emotions communicated during preparatory mother-child discussions in a movie story-retelling task. "Theory theory," which proposes that cognitive development is analogous to theory formation and change in the field of science, was tested. Fifteen dialogues by mothers and their 5-year-old children were selected to be studied because their discussions exhibited substantial use of emotional language in relation to at least one of three conflict situations in the movie and because the children subsequently performed effectively on the story-retelling task. A quantitative analysis of emotion words and a qualitative analysis of selected dialogues were conducted. The results indicated that, while cognitive development is not completely analogous to theory formation in the field of science, three important narrative theoretical elements were employed by mothers and children: attributing emotions to characters; adjudicating characters' emotional attributes through contested evidence and inference; and using hypothetical cases as story resolutions and analogies. The results support a continued focus on the high point or emotional climax of the story as a strategy for fostering narrative development in young children.

## INTRODUCTION

How do a group of effective mothers and their 5-year-old children discuss an emotionally arousing movie as preparation for a story-retelling task? Children of this age generally have mastered the recall of action sequences and plot in stories and, thus, the critical developmental issue is their understanding of story characters' subjective states, such as intentions, emotions, and reasons for acting. As such, we were interested in how mothers supported children's knowledge of characters as persons who have subjective states in their relationships with other characters. As mothers talk with children about stories, there is also an opportunity for them to investigate each other's beliefs about the characters, as well as the potential for teaching children to elaborate their beliefs into hypotheses and theories. Thus, the task represented an opportunity to test so-called "theory theory," which proposes that children's cognitive development is analogous to theory formation and change in science. It was assumed that a movie story retelling task has good potential for stimulating the kinds of cognitions involved in children's social theory constructions, including the activation of memory and emotions, comprehension, problem-solving, and synthetic cognitive operations, all of which inform their understanding of characters' emotions and intentions.

Prior research on effective preparation for young children retelling *Prancer*, a children's movie, found that an experimental strategy involving systematic questioning of children concerning the major features of the story and corrections of the children's responses, if needed, was superior to natural maternal strategies (Beck & Clarke-Stewart, 1998). Moreover, mothers who spontaneously emulated the experimental strategy, by using frequent questions and corrections, were associated with children who performed significantly better than a group of children whose mothers did not employ the strategy.

Related research also determined that children, who had participated in at least one extended dialogue with their mothers, defined as 5-17 turns in which a topical focus was maintained, earned significantly higher scores for recall of facts and comprehension of characters' actions and intentions in their retold stories (Clarke-Stewart & Beck, 1999). Such extended dialogues were focused on the moral issues of the story, which were concerned with the advisability of a young girl being in a forest alone, whether a child in a poor family should be sent to a well off relative to live, and how to treat an injured wild animal.

Another outcome of this research, to be extended in the present study, was the finding that mother-child dialogues that used many emotion words were associated significantly with children who performed effectively in the story retelling task (Clarke-Stewart & Beck, 1999). We remarked that effective mothers appear to function as informal *psychologists* for their children as they discuss the emotions of the characters in the story (Clarke-Stewart & Beck, 1999). Such discussion was largely in the service of developing children's understandings of the characters' emotions, but also served as a therapeutic support for children's emotional responses to the dramatic movie. Thus, mothers could help their children understand the movie better and tell a more complex story by providing them with emotional information and support. Further, talking about the emotions of the characters in the movie or about the child's reactions to the characters' emotions could provide a scaffold for increasing the child's understanding of the characters' internal states and intentions.

Notably, in the Clarke-Stewart and Beck (1999) study, the extended exchanges that the good scaffolders had with their children *all* involved emotional issues in the story, including the girl's anxiety about the reindeer and her sadness about leaving her father, as well as the father's anger about the girl being in the forest. For children at this age, the challenging aspects of

narration concern the characters' internal states—motives and emotions. Most 5-year-old children already have mastered the ability to retell a story that contains action in a causal sequence (Beck & Clarke-Stewart, 1998), but they need adult support to understand and incorporate the unseen, underlying motivational and moral themes. By explaining more about the movie characters' motives, intentions, and conflicts, adults deepen the child's comprehension of the story. Talking about emotions also may encourage children to empathize with the characters, and empathic understanding may help children understand and reconstruct the story. In a follow-up study of the same data, Beck (2002) found that effective mother-child pairs, whose children were high performers in a story retelling task, discussed emotional climaxes as part of an effort to support their children's understanding of the moral rules underlying these high points.

These results support the findings of recent experimental research in which interventions targeting the "high point" or emotional climaxes of stories were associated with improved performance on narrative measures and the development of evaluative language in low SES 5-year-old children (Moss, Mitchell, Pursell, & Campione, 2002). The explanation for these findings builds upon Labov's contention that the emotional climax and associated emotional language of stories indicates why the story is important and supports understanding of characters' intentions behind the story's events (Moss et al., 2002). The centrality of children's understanding of emotional climaxes, as predictive of narrative competency, was explained as follows. "A story's climax represents the core at which all of the other story elements revolve . . . it provides the story with an emotional purpose or reason for being told" (Moss et al., p. 21). Thus, an understanding of the emotional climax is related to an understanding of the goal of the story and is a key to understanding different characters' goals.

### Purpose of the Study

The purpose of the study was to develop a model of children's narrative theories of characters' emotions in a movie story that would explain and systematize previous findings and serve as a guide for closer examination of "emotional language" in mother-child exchanges about story characters. So called "theory theory" proposes that "cognitive development is analogous to processes of theory formation and change in science" (Gopnik, 2001, p. 45). In this view, cognitive development involves rules and representations that are similar to those used in scientific development and progress.

Theory formation and revision are concerned with accounts of the "underlying causal structure of the world" (Gopnik, 2001, p. 46). Keil and Silberstein (1996) point out that it is commonplace for us to have theories about people and their dispositions to behave. "Humans spend endless amounts of time on . . . after-the-fact explanations about why people acted as they did, not so much to predict their future behavior as to know how to evaluate and react when people act in certain ways" (p. 626).

As theories are communicated, they may involve particular selections and misinterpretations of evidence. Revisions of children's theories of causal structure occur when they compete with counter-evidence to their theories. The driving force for theory development, according to Gopnik (2001), is the search for truth. Because they have greater explanatory power, more veridical theories, such as those of adults, are internalized by children and replace their own theories.

The present study, however, calls into question how readily children surrender their own theories, at least with respect to the characters in a movie story. In the present context, in which mothers help children prepare to retell a movie in which a parent and child are in conflict over

several issues, including whether to help a hurt reindeer, it was assumed that mothers and children would have discrepant theories of the story action. Thus, their preparatory dialogues should reveal how children's theories interacted with the mothers' theories of the intentions, motives, and feelings of the same movie story characters and whether these interactions led to children accepting or rejecting maternal theories.

### Intentional Instruction

The dialogues of this study are examples of what Kruger and Tomasello (1996) refer to as *intentional instruction*. This form of instruction is directed at the child's acquisition of cultural skills. "In certain instructional situations, the adult intends for the child to learn in a special way, to adopt a new, more adult-like perspective" (p. 382). Intentional instruction often uses material and environmental features in a directed way by highlighting cause-effect relationships, and "parents act as if their children were mature interactive partners . . . By figuring out the intentions of the other people in their world, and by adopting these intentions as their own, children are cognitively changed" (p. 383). We propose that the sample dialogues in this study are rich examples of intentional instruction. The "other people" are the characters in the movie story, and the principal objective in a movie-retelling task is to determine the characters' intentions.

Keil and Silberstein (1996) argue that intentional instruction should build upon children's spontaneous inquiries and explanations about the world and make connections between their inquiries and those that are guided in instruction. Thus "instruction should clearly be concerned with enhancing explanatory and theoretical knowledge" and should "teach children to think about the underlying assumptions they hold, probe their implications, evaluate truth claims, and ultimately, further the boundaries of knowledge in the areas that capture them most" (pp. 638,

641). These researchers also emphasize that history and literature lend themselves naturally to the development of social theories. In this regard, children can understand that social arguments about characters in literature or movies, for example, appeal to psychological entities such as intention and belief.

In intentional instruction, children are viewed as thinkers and not merely as repositories of information to be filled by adults (Bruner & Olson, 1996). At this stage of children's development, there is an intersubjective exchange in which "children no less than adults are thought of and treated as having a point of view, and they are encouraged to recognize that point of view that may not always agree with their own, though differing views may all be based on recognizable reasons. These reasons may be appealed to in adjudicating rival beliefs" (p. 19). In the present context, these beliefs are signified by emotion words such as "mad," "upset" and "sad," attributed to characters. It is expected that children and adults will differ in their beliefs about characters, and such differences have the beneficial effect of provoking adjudication. Adjudication moves the mother-child conversational interaction from emotion-based beliefs into the sphere of reason, where normative cultural rules prevail and beliefs may need to be defended using evidence and argument.

What is the nature of children's narrative theories of characters? In this context, the children's narrative theories refers to their evaluative attribution of characters' emotions as based on their interpretations of story events. Thus, the attribution of emotions to characters indicates social beliefs held by children about the characters' intentions. The theories are also based on their personal emotions for the characters. Olson and Bruner (1996) suggest that the problem mothers face is one all educators confront:

At issue is how subjectively held beliefs are turned into theories and/or facts. We begin with beliefs; the task is to turn them into hypotheses that stand not on the faith we place in them but on how they stand up in the public marketplace of evidence, interpretation, and agreement with other useful knowledge . . . Knowledge, after all, is *justified belief* (pp. 20-21).

Can we show that in these mother-child conversations that mothers help their children understand how their feelings are influencing their beliefs about characters' intentions? Do they help their children subject their beliefs to relevant contextual knowledge and, in the process, teach them the criteria for evidence, inference, and truth?

#### *Research Questions*

Research Question 1 is concerned with emotional attributions about characters as truth claims and had three parts. Which personal emotions of children and mothers are attributed to the characters? Do mothers and children differ in their emotional attributions of characters? Do mothers and children differ in their explanations supporting their emotional attributions of characters?

Research Question 2 is concerned with the adjudication of these truth claims. How do mothers and children argue for their attributions and how do mothers and children against each others' attributions?

Research Question 3 concerned hypothetical cases. Do mothers and children propose hypothetical cases as further arguments to support their emotional attributions of characters?

#### Analysis Plan

The first phase of the analysis of mother-child discourse processes was to determine the children's and mothers' emotional attributions. The second phase was to analyze how these

attributions were adjudicated, based on their contested presentations of evidence and rules, as well as hypothetical case examples (Beck, 2002). It also was expected that, as in any argumentative setting, the participants, who differ in their attributions, would assume adversarial positions in terms of the evidence they offer.

## METHOD

### Sample

The 15 mothers and children were selected from a sample of 31 families living in Orange County, California. There were eight boys and seven girls, ranging in age from 4.7 to 6.0, with a mean age of 5.3 years ( $SD = .2$ ). The families had been recruited randomly from hospital births that met the following criteria. For the mother: (a) 18 years of age or older, (b) fluent in English, (c) having no medical complications at the birth, and (d) not planning to move within the next three years. For the infant: (a) not from a multiple birth and (b) not needing to stay in the hospital for more than 1 week after birth.

The entire sample was tested on the Reynell Developmental Language Scales (Reynell, 1991) at 36 months. The mean standard scores for the overall sample on the expressive scale were 98.3 (range = 63-127) and, on the vocabulary comprehension scale, 98.6 (range = 62-134). The children in the study group had scores clustering about the mean. For the expressive scale, the range was 77-111 and, for the vocabulary comprehension scale, the range was 83-108. The mean of the parents' education was 15.2 years (for both mothers and fathers), 56% of the parents had graduated from college, and all were middle class. All but one of the children was Caucasian (the other was Asian). As part of a larger assessment of child development, these mothers and children were asked to watch a brief excerpt from a movie together and discuss it.

### The Videotaped Story

The videotaped story was a 5-minute segment selected from the movie *Prancer*, a commercial children's film about a girl who becomes closely attached to one of Santa's reindeer. The segment contained the following events: *Jessica, an 8- to 9-year-old girl, is seen following an animal's tracks and hears shots as she walks through the snowy fields and forest. Jessica's father comes across his daughter unexpectedly while driving his truck on a forest road to go shopping. He criticizes her for being in the forest alone. She explains that she was looking for Prancer. They then have a tearful confrontation when her father tells her he is thinking about sending her to live with her Aunt Sarah because he is unable to give her the things she needs, now that her mother is no longer there. Jessica yells to her father to stop and the truck screeches to a halt as Prancer suddenly appears on the road in front of them, his leg bleeding. The father goes to get his gun to put the animal out of its misery. Jessica tries to stop him. "No, daddy, no!" They turn around and the animal has mysteriously disappeared.*

This movie segment was selected because it was anticipated that it would arouse in children a complex range of empathic emotions, including fear, anger, and sadness when the reindeer was in danger, as well as relief and happiness when the reindeer escaped. The segment also was selected because it provided mothers with interesting and complex material to discuss with their children, including the central moral issue of why a hurt animal should be put out of its pain.

### Procedure

Each mother-child pair was assessed alone in a child development laboratory playroom at the university. Mothers were told that they would be watching a brief excerpt from the movie *Prancer* with the child and then the child would be expected to retell the movie story to an

experimenter who had not seen it. The mothers were instructed to watch the movie with the child and then talk to the child about the movie as they would at home. The videotape was put into the videocassette recorder, and an experimenter told the child to watch the tape carefully because he or she would be telling the story afterwards to someone who had not seen the movie. Mothers and children then watched the *Prancer* videotape clip. After viewing the videotape, mothers and children in the mother-discussion condition discussed the story together for as long as they cared to. If the child paused, but seemed ready to talk further, the mother was allowed to paraphrase the child's last statement, in the form of a simple non-leading question, or ask what happened next. The preparatory conversations between mothers and children and the child's retelling of the movie story were video recorded and transcribed.

### Sample Dialogues

The present sample of 15 dialogues was drawn from the 31 dialogues. To qualify, these dialogues needed to be concerned with characters' emotions arising in relation to at least one of three social conflict situations: Should the little girl be in the forest alone? Should the poor father send his daughter to live with a well off relative? Should the father shoot the hurt reindeer to put it out of its misery? Seven of the dialogues that dealt with these moral themes concerned shooting the reindeer, while four each treated the girl in the forest and the relative. The children who participated in these dialogues, compared with the other 16 dialogues, also performed significantly better on the story-retelling task.

## RESULTS

The results from two studies are presented. Study A is a quantitative analysis of emotion words in sample dialogues. Study B is a qualitative analysis of selected dialogues, according to a model of "emotional language."

### Study A: Quantitative Analysis of Emotion Words in Sample Dialogues

The purpose of Study A was to determine the frequency and variability of emotion words in the sample of dialogues. The researchers considered the number of sentences that contained words indicative of the emotions of empathy, anger, or fear found in the 15 dialogues. The results indicated that the 15 narratives contained a total of 134 sentences that contained words of emotion, with a range of 2-23 per narrative and a mean of 7.80. Of these sentences, for empathy or sadness, there was a total of 91 sentences (contained within 15 dialogues), with a range of 2-17 per narrative and a mean of 6.07; for anger, there was a total of 33 sentences (contained within 10 dialogues), with a range of 1-10 per narrative and a mean of 3.30; and for fear, there was a total of 10 sentences (contained within 4 narratives), with a range of 1-6 per narrative and a mean of 1.67. The results are presented in Table 1.

Table 1

#### *Sentences Containing Emotion Words*

Sentences Containing Words of Emotion	Total	Range	Mean
All sentences containing words of emotion (N = 15)	134	2 - 23	7.80
Empathy or sadness (n = 15)	91	2 - 17	6.07
Anger (n = 10)	33	1 - 10	3.30
Fear (n = 4)	10	1 - 6	2.50

In addition, the number of sentences containing emotion words (134) was compared to the total number of sentences (875). The results indicated that the number of sentences containing emotion words represented 15.31% of all sentences. Further, there was a mean of 8.93 sentences containing emotion words and a mean of 58.33 total sentences.

The presentation of the results is organized in terms of four questions.

*Q1. What did the children feel about the father in the story?*

In 10 of the 15 dialogues, the child expressed either anger at or fear of the father. In these dialogues, negative emotions were attributed to the father in his relationship with the reindeer and his daughter. Anger was expressed by attributing anger to the father in his intentions toward the reindeer. Fear was expressed in 4 dialogues. When fear was expressed, the children cited the father's anger at the little girl, that he had told the girl that she was going to be sent to live with her aunt, or that he was going to kill the reindeer.

*Q2. What did the children feel about the deer?*

In 12 of the 15 dialogues, the child expressed empathy toward or anxiety about the reindeer. As was expected, the children's feelings toward the reindeer fueled their anger at the father, who was perceived as angry at the deer.

*Q3. What did the mothers feel about the father?*

In 10 of the 15 dialogues, the mothers expressed empathy toward the father and focused on explaining his position. In 7 dialogues, the mothers expressed empathy for the father, by arguing from the moral rule, that when wild animals are injured, they need to be killed to keep them from suffering.

*Q4. To what extent did the study child assume the emotions of the child character?*

This question is best addressed by looking at the data related to questions 1 and 2, with the data for question 1 being more important, as one would expect or at least hope that children would have inherently positive feelings for their father.

The data from question 1 indicate that 66.67% (10) of the children felt either fear of or anger toward the father. The little girl, through words, facial expressions, or gestures, expressed both of these emotions. The main source of the children's feelings toward the father was the

little girl. However, it is possible that, in some cases, their anger or fear may have stemmed merely from witnessing the father's desire to kill the reindeer. Indeed, this was mentioned in nearly all cases.

In regard to the data from question 2, 80% (12) of the children expressed empathy toward or anxiety about the reindeer. Again, these emotions were clearly modeled by the little girl. However, as in the situation above, their empathy may have stemmed merely from observing the reindeer's plight.

### *Conclusion*

Children and mothers differed substantially on the emotions attributed to the father, with the former attributing negative emotions, such as anger or anxiety, and the latter attributing positive empathy emotions. To a lesser extent, there were differences in attribution toward Jessica, with children viewing her as fearful, while mothers downplayed her emotions. The data suggested that mothers and children have different and oppositional approaches to supporting their views about characters' emotions.

### *Study B: Qualitative Analysis of Selected Dialogues*

Based on the findings in Study A, that mothers and children had varying theories of characters' emotions and intentions, and the research questions stemming from assumptions that a jurisprudence-like, adjudication procedure would be operative in intentional instruction, a model of mother-child emotional language was proposed. The model assumes that mothers and children will engage in different forms of emotional language, indicative of oppositional approaches, to substantiate their theories of characters' emotions and intentions, including: (a) inquiries into attributions of characters' emotions and explanations used to defend their claims

about characters' emotions; (b) contested exchanges of theories of characters' emotions used to convince; and (c) formulations of conditional and hypothetical understandings about characters.

Note: Mothers' turns are presented in regular typeface. Children's turns are presented in *italics*. Prosodic features were not coded, other than exclamation points for stressed sentences. References to "Jessica" and "father" or "daddy" are to the young girl and father, respectively, in the movie story.

*Attributions and Explanations of Study Children's and Characters' Emotions*

*Dialogues 1-2*

Mothers routinely ask their children questions regarding how *they* feel about characters:

*Dialogue 1 (D 1)*

Turn 3 Oh my goodness, are you okay?

Turn 4 *It scared me.*

Turn 5 It scared you; what scared you?

Turn 6 *When, when he got shot, but he ran away. I thought it was gonna shoot it!*

Turn 7 Oh no.

Turn 8 *But he missed it.*

Turn 9 Yea, did you feel bad for the little girl?

Turn 10 *Yea, but I really felt bad for that animal.*

The mother initiates the sequence in D1 by checking the emotional status of the child. Is her child okay or not? When the child responds by speaking about her feelings, "It scared me," the mother follows up by launching her investigation, querying the feeling ". . . what scared you?" The segment ends with the mother's attempt to conclude this mini-lesson on emotions by providing a hypothesis of what had been said in this dialogue. In effect, she states,

“from all that you say, I see that you felt bad for the little girl.” This hypothesis is confirmed by the child, but also extended to communicate a new belief, and potentially a new topic, that she also feels bad for another character, the reindeer.

In another example (D2), it was the child who inquired into the meaning of a word her mother had used with reference to the reindeer’s feelings.

*Dialogue 2 (D2)*

Turn 4 *What’s suffer?*

Turn 5 Suffer. That is when you are hurt or sick and you have no chance of getting better . . .

*Conclusion*

On the basis of these conversational excerpts and other data, it was concluded that mothers need to test their children’s emotions concerning the story. They do this by questioning children about their feelings for characters and characters’ feelings. With mother’s scaffolding, children can discriminate between different intentions and depths of emotions.

Children also had theories about characters’ emotions. These theories are signified by the emotion labels attributed to the characters and the children’s personal feelings about the characters. Thus, children have feelings for movie characters, and these feelings influence how they attribute and interpret characters’ feelings and intentions. Yet, they also attribute feelings and intentions to characters, based on the latter’s interaction with other characters and events of the story.

*Exchanges of Conflicting Theories of Characters’ Emotions*

*Dialogue 3*

It is assumed in our model, and from the results of Study A, that children and mothers have discrepant theories of characters' emotions and their intentions. Therefore, it was expected that mothers and children would compete over attributions of characters' emotions and would provide conflicting explanations for characters' actions. One extended dialogue, D3, was examined in depth to better understand mother-child conflicts over characters.

*Dialogue 3 (D3)*

This dialogue first refers to the scene in which the father criticized Jessica for being in the forest alone, then makes a transition to the scene with the reindeer, and concludes with the forest scene.

Turn 1 And why was the daddy angry?

Turn 2 *Cause she was wandering all around?*

Turn 3 Okay, and was he angry in a bad way, or a good way?

Turn 4 *A bad way.*

Turn 5 Why was it bad?

Turn 6 *Cause he was yelling at her.*

To answer his mother's query as to why it was a bad way, the child refers to the father's yelling. For this 5-year-old child, this is a sign of bad intent. However, in turn 7 below, the mother wishes the child to move away from this emotion and directs the conversation toward explaining the anger as an effect of her "wandering around," a point the child already has conceded.

Turn 7 Do you know why he was angry? . . . Why was he angry at her for wandering around?

Turn 8 *Cause she wasn't supposed to.*

The child moves easily into this realm with an explanation, “Cause she wasn’t supposed to.” Thus, the child displays his knowledge of a moral rule: children should not wander around in a dangerous place alone. Moreover, in the following turns, the child demonstrates additional understanding of the rule

Turn 9 Yeah. Why? What could happen?

Turn 10 *She could have got shot.*

In turns 11 and 12, the mother reiterates asking the child to provide evidence for his understanding of the rule: to give a hypothetical outcome if the rule were not followed, perhaps to verify that the child really understood the rule. The child’s response, “She could have gotten shot,” is hypothetical conditional knowledge that confirms the child’s understanding of the rule.

Turn 11 Okay, he was angry, because he was what . . . ?

Turn 12 *Because she could have got shot.*

In turn 13 below, the mother switches from a question about anger to a more general question about the father’s feeling. She verifies, one more time, whether the rule is truly understood.

Turn 13 Uh huh, how was he feeling? ‘Cause he was . . . ?

Turn 14 *Mad.*

Turn 15 He was mad, but more than mad; he was . . . ?

Turn 16 *At the girl?*

Turn 17 No.

Turn 18 *The reindeer!*

In turns 14-18, however, the child suddenly switches the topic to a different point of the story. At first, the mother does not realize why the child is calling the father “mad” again. She asks if he was mad at the girl. “No,” says the child, at “the reindeer.”

Turn 19 No, no, no. He was angry because he was afraid, right? What was he afraid of?

Turn 20 *Afraid she was gonna die.*

Turn 21 Afraid she was gonna die? Yeah. Well, yeah he was afraid she might get hurt wandering around in that snow, right?

In turn 19, however, the mother wishes to return to the point that the father’s anger was linked to the girl wandering around, not toward the reindeer. She attempts to differentiate two situations that she fears the child has confused. Her child, however, will not abandon his own theory. After a kind of “time out” that may be some sort of conversational ritual used by this mother and son . . .

Turn 22 Wait, right?

Turn 23 *Right.*

. . . the mother then asks what the little girl’s fear was about.

Turn 24 And what was she afraid about?

Turn 25 *That she was gonna, that he was gonna kill the deer. That, that she was yelling. That he was yelling at her.*

In the child’s response in turn 25, he correctly identified Jessica’s emotions, that she was afraid because her father was going to kill the deer and that they were both yelling. While the reference to yelling appears to refer back to the father yelling about wandering around, the child mediates by reporting that they are both yelling, possibly indicating that he excuses the father’s yelling in the former scene.

### *Conclusion*

In an effort to resolve discrepancies between her theory of characters' intentions and those of her child, the mother used at least five strategies. First, she closely questioned and clarified her child's emotional attributions to characters. Second, she interpreted his errors in thinking about characters. Third, she cited evidence from the story to explain her own theories and to refute the child's theories. Fourth, she checked her son's understanding of the moral rules underlying emotional attributions. Fifth, she tried, but found it difficult, to dislodge her son from his theories of characters' intentions.

### *Formulations of Conditional and Hypothetical Understandings about Characters*

#### *D4-D7*

From previous research (Beck, 2002), it was expected that mothers and children would refer conditionally to characters' actions and emotions as they might exist outside the story. In a dialogue (D4), whose beginning had been examined previously, the mother explains the reindeer's feelings. Beginning with a technical definition of suffering, she extends her explanation into a hypothetical realm by creating a scenario of how the reindeer would be suffering if it were not put out of its misery.

#### *Dialogue 4 (D4)*

Turn 5 Suffer. That is when you are hurt or sick and you have no chance of getting better and you just can't go out and get food to eat or water to drink because the reindeer had a broken leg so he couldn't walk to eat his food or to get water. So then he would die just alone and hungry, thirsty, and that would be suffering. So the daddy thought he would shoot him so he wouldn't suffer . . .

In two other dialogues, it was the child who offered a hypothetical case that might be used to save the deer.

*Dialogue 5 (D5)*

Turn 1 *If they have paramedics for dogs and cats, then they have them for deer.*

*Dialogue 6 (D6)*

Turn 1 Why do you think they wanted to kill it?

Turn 2 *Cause it was already hurt.*

Turn 3 Could he fix it?

Turn 4 *No, grandpa could.*

Turn 5 Grandpa could, huh?

Turn 6 *Put a Band-Aid.*

Turn 7 Yeah, make it all better. He fixes you, huh?

Turn 8 *Mom, he fixed all these.*

The child's competency in using the logic and language of hypothetical cases is indicated by an if-then structure in D5: if cats and dogs have doctors, then deer have doctors. Moreover, in D6, "Grandpa" is not a character in this story and the child demonstrates an understanding of this as seen in the conditional language in turn 4 ("No, grandpa could"). There is also an abstract generalized reference to him in turn 8 ("He fixed all these"), indicating that he may be placed in an analogous relation to story events. Just as grandfather does help in the real world, so he could have helped in the story.

In the dialogue below (D7), the mother teaches the child about the father's emotions by creating a hypothetical scenario of how the mother would feel in a comparable real situation.

*Dialogue 7 (D7)*

Turn 1 Yeah, her dad, her dad stopped in the truck. Was he kind of, how did he feel when he saw her?

Turn 2 *Mad.*

Turn 3 Yeah, how come he was mad at her?

Turn 4 *Well, I don't know.*

Turn 5 I think he was mad, probably, how I would be mad at you if you went out in the snow all by yourself.

Turn 6 *No you wouldn't.*

Turn 7 I would because I would be so worried that you could get hurt or too cold. Cause he loved her so much I think he was worried that she was out all by herself.

In this exchange, the mother wishes to teach her child the pertinent moral rule by building links between the story events and real events. As such, she teaches by analogy. Specifically, as Jessica should not have been out alone in the forest, so her child should not be out by herself in the real world. Notice that she reinforces her hypothetical case analogy by referring to complex emotions she would feel, building on being angry and also worried because she loves her child so much. The moral rule is taught by showing the emotional impact on the mother if the rule were broken.

### *Conclusion*

Mothers used hypothetical scenarios as analogies to teach the meaning of characters' emotions and to defend their views of the relevant moral rules. Mothers also used hypothetical scenarios to compare the movie story with their own family life in an effort to support children's understanding of the characters' feelings and the associated moral rules about not being alone in the forest, as well as the need for extended family members to help relations in dire straits.

Children also used conditional, hypothetical language to propose inventive solutions to save the reindeer. Hypothetical cases, tending to occur near the end of mother-child discussion, probably also served to resolve dilemmas in the story. Perhaps they were methods to resolve the emotional climax and propose an hypothetical ending to the story.

## DISCUSSION

We conclude that the sample dialogues presented in this study are examples of “intentional instruction.” Five year-old children were treated as having a point of view and capable of engaging in an adult conversation, in which they speak of their own subjective states and make intersubjective references to each other’s thinking. The dialogues seamlessly linked the children’s spontaneous explanations to adults’ explanations. Theory involved both simple attributions and claims of emotions in characters and argument concerning the underlying moral rules presumed to explain story actions. The goal, from the mothers’ perspective, was to change what they perceived as their children’s misunderstandings of key characters in the story that led to developmentally immature theories about the characters.

Of interest is whether mothers used theory development and science epistemology as conceptual tools, as Gopnik (2001) has suggested. While they did use these conceptual tools, they did not necessarily do so in the form of science that Gopnik envisaged. This, of course, is related to the type of social narrative task used in the present study in contrast to the “false belief” tasks referred to by Gopnik. Overall, three theoretical elements were employed by mothers and children in the discussions: characters’ emotional attributes; adjudication of characters’ emotional attributes; and hypothetical case scenarios.

### *Characters' Emotional Attributes*

Both children and mothers used emotion words to label characters. These labels were treated by both parties as claims or hypotheses, in that they represented a particular kind of judgment about the character. It is suggested that these descriptive ideas about the characters represent the concepts or hypotheses that are subsequently tested through explanation and evidence.

### *Adjudication of Characters' Emotional Attributes*

After communicating their emotion labels, both parties judged and contested each other's character attributes. Mothers, of course, were more dominant in their judgments and largely conducted the adjudication. The adjudication consisted of eliciting evidence about the movie story and calls for explanations of characters' actions.

### *Hypothetical Case Scenarios Used as Analogies*

Characters and their emotions were represented by some mothers and children in conditional or hypothetical case scenarios that were parallel or analogous to the story. Both mothers and children elaborated their descriptions and accounts of the characters by imagining them in actions extending out from the story (e.g., into deer hospitals or the end of a wounded deer's life) and into analogous scenarios extending out hypothetically in the context of the speakers' own families. These scenarios were used by both parties as further arguments to support their views of the characters, but also to resolve the reindeer's problem.

Therefore, the form of theorizing and theory development occurring in these conversations might better be described as adjudication or moral theorizing than as social or physical *science*. Such adjudications naturally use narrative evidence and argument as quasi-judicial methods. In these dialogues, in fact, children generally accused the father

character of wrongdoing, while the mothers universally defended him as innocent and virtuous by offering their own views of his behavior. The process very much followed Bruner and Olson's (1996) theory that, in such socializing discourse, *beliefs are turned into theories or facts*. However, the language used to transform beliefs into theories and facts might better be visualized as occurring in a "court of reason" (Toulmin, 1963; Beck & Wood, 1993) than in a scientist's laboratory. Yet, the process, no less, seeks the truth. In social life, truths involve judgments about persons as right or wrong. Both evidence and argument are offered to prove these positions.

Another goal of this theory making, however, is for the child to understand the moral rules involved in the forest, Aunt Sarah, and hurt reindeer scenes. Thus, theory making also involves the clarification of an underlying law that governs the narrative events. The contestation over the characters was instrumental in clarifying the moral rules. If mothers could show that the father was right, and not wrong, as children saw him, this could support the children's understanding of the father's motivation as provoked by a reason other than not liking the reindeer. Discussing the characters' virtues and sins, therefore, was inextricably related to justifications according to the moral rule presumed to be operative from both children's and mothers' perspectives. After all, the children had their own different operative moral rule in the deer situation: "Do not harm animals." As we saw, they were more likely to understand and even agree with the adult rules about being in the forest alone and sending Jessica to Aunt Sarah.

Astington and Pelletier (1996) stated that it was not until children were six or seven years old that they could reflect on the beliefs of others. The evidence in the present study suggests that this mental ability may develop earlier than had been suspected, albeit under conditions of strong maternal scaffolding. The children responded to their mothers' beliefs about the

characters with understanding and the capacity to offer evidence and argument on behalf of their own beliefs. Perhaps it was the emotionally arousing power of a movie story that provided children with an opportunity to display their powers.

## CONCLUSION

The findings of the study support more integrated models of emotion and reason in social development. In social situations involving intentional socialization, because there are developmental discrepancies between adults and children, emotional judgments are contested and clearly dependent on reasons to sustain them. For example, by asking “why” questions, mothers routinely called for their children to offer reasons for attributing emotions to characters. Thus, while emotions are the source of intentional instruction, in social interaction, the process quickly involves techniques to transform the emotions by changing the labels, analyzing the reasons for actions, and theorizing imaginatively about the emotions.

Particularly with respect to social development, emotions cannot begin to be understood without recourse to context. Perhaps, in fact, this was the principal finding of this study. Whereas children affixed “bad guy” labels and regarded the attribute as a dispositional trait that explained why the father was acting as he did, mothers tried to enlarge the field of view to include the whole context, to show how the father responded to local conditions, underlying rules, and hypothetical outcomes. Thus, as Keil and Silberstein (1996) indicated, what is involved here is the “discovery of complex causal patterning” to explain phenomena such as characters’ intentions.

### Implications for Future Research and Fostering Emotional Development

It is suggested that the most exemplary strategies used by these study mothers could serve as models for future parental instruction. Parents should be taught to inquire into children’s

emotional attributions of story characters and how to answer children's questions. They also should be taught to engage in adjudication that, while respectful of children's views, offers their own examples and reasoning to support normative cultural rules. Finally, another benefit of narrative research is that, by helping children understand characters' emotions, they come to understand how their own emotions are related to story events. We believe that such research could and should contribute to children's emotional development, with all the attendant practice in logic and reasoning that the research has shown.

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