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THE EMOTIONAL BASIS OF LEARNING AND DEVELOPMENT IN EARLY CHILDHOOD EDUCATION

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Petey runs, darts, and jumps with a ball clenched tightly in his arms. He screams "ok" to an invitation to play, but is unable to restrain his desire to keep the ball and game as his own. He pulls the ball away from another boy, angrily shoving him and screaming insults. In free play, individual, small group, or whole-group activities, he is angry, often out of control, hitting and throwing objects.

Sean, by contrast, speaks hesitantly, often echoing others' communications, as if practicing. He is always the third, fourth, or last, to attempt a task, never asserting ideas or desires. He is quiet, sometimes looking quite sad on the sidelines, seeking the comfort of his thumb. He seems overwhelmed and withdrawn.

Jeremy's behavior paints a different picture: he is a "hurried child" (Elkind, 1982). Although he plays and interacts with peers fairly well, teachers note that he has difficulty permitting other children to lead activities or reject his ideas, and bates to make a mistake. This upsets him very much.

The current educational climate, focusing strongly as it does upon children's cognitive development, promotes early literacy and numeracy. Although these preacademic skills are immensely important, Petey, Sean, and Jeremy are not alone in needing us to focus on other domains of development. Their experiences illustrate that, in order for all young children to learn, and for their development as "whole" persons, emotional and social development require equally careful nurturing. It is more important than ever to reflect upon what we know about children's emotional competence. Young children must learn to send and receive emotional messages, using their knowledge about emotions and their abilities to regulate emotions, so that they may successfully negotiate interpersonal exchanges, form relationships, and maintain curiosity about and enthusiasm for

their world (Halberstadt, Denham, & Dunsmore, 2001; Saarni, 1990). Thus, the main components of emotional competence are the child's expression and experience of emotions, regulation of emotions, and knowledge of emotions. Internal, intrapersonal processes, such as the child's temperament and language abilities, contribute to these components. They are also impacted by other people's modeling of emotional expressiveness, reactions to the child's emotions, and actual discussion and teaching about emotions. Accordingly, the goal of this chapter is to give a view of both the breadth and depth of preschoolers' emotional competence, as well as the contributions made by within-child qualities and the socialization of important others.

Furthermore, emotional competence is crucial not only in its own right but for positive outcomes in both social and academic domains. First, one of young children's most important developmental tasks is achieving sustained positive engagement with peers. The components of emotional competence help to ensure effective, successful social interactions built on specific skills such as listening, cooperating, appropriate help seeking, joining another child or small group, and negotiating. The young child who does succeed at this developmental task is in a good position to continue thriving in a social world: successful, independent interaction with age-mates is a crucial predictor of later mental health and well-being, beginning during preschool, continuing during the grade school years when peer reputations solidify, and thereafter (Denham & Holt, 1993; Robins & Rutter, 1990)

Second, emotional competence also supports cognitive development, preacademic achievement, school readiness, and school adjustment, both directly, and indirectly, through its

contributions to social competence and self-regulation (Blair, 2002; Carlton & Winsler, 1999; Greenberg & Snell, 1997). Children who enter kindergarten with more positive profiles of emotional competence, as well as well-developed skills of social competence and self regulation, have not only more success in developing positive attitudes about and successful early adjustment to school but also improved grades and achievement (Birch, Ladd, & Blecher-Sass, 1997; Ladd, Birch, & Buhs, 1999; Ladd, Kochenderfer, & Coleman, 1996). In particular, when children enter school with friends, are well liked, are able to make and sustain new friendships, and are able to initiate positive relationships with their teachers, *all of which are supported by emotional competence*, they also feel more positive about school, participate in school more, and achieve more than children who are not described this way. In contrast, children who are victimized by peers or who are angry and aggressive have more school adjustment problems and are at risk for numerous problems, including school difficulties with academic tasks. Later on, they are more likely to drop out and persist in their antisocial behavior, such as delinquency and drug abuse (Gagnon, Craig, Tremblay, Zhou, & Vitaro, 1995; Haapasalo & Tremblay, 1994; Kochenderfer & Ladd, 1996; Raver & Knitzer, 2002). In short, social and emotional factors, such as emotion knowledge, emotion regulatory abilities, social skills, and nonrejected peer status, often uniquely predict academic success, when other pertinent factors, including earlier academic success, are already taken into account (Carlton, 2000; Howes & Smith, 1995; Izard et al., 2001; O'Neil, Welsh, Parke, Wang, & Strand, 1997; Pianta, 1997; Pianta, Steinberg, & Rollins, 1995; Shields et al., 2001).

Because emotional competence is so important—both in its own right and because of its major contribution to social competence and both direct and indirect contributions to school success—the major goals of this chapter are to fully describe: (a) the separate components of emotional competence—emotional expressiveness, emotion knowledge, and emotion regulation; as they develop through the preschool and primary periods; (b) the research knowledge base regarding each of these facets—their manifestations during early childhood, as well as how they relate to successful social development and school success; and (c) the direct and indirect contributions of each aspect of emotional competence, to both social competence and school success. After each of these descriptions, we summarize the promotion of emotional competence by parents, teachers, and others. Finally, the role of early childhood education in addressing each component of emotional competence is considered, along with ideas for future research and applied considerations. First, then, we turn to a more detailed consideration of the general nature and specific manifestations of emotional competence during the early childhood timeframe.

WHAT IS EMOTIONAL COMPETENCE?

The social-emotional skills that preschoolers normally develop are quite impressive. Not everyone looks like Petey, Sean, or Jeremy. Consider the following example:

¹Attachment relationships with adults—both parents and teachers—are an extremely important foundation for emotional and social competence, but beyond the scope of this chapter.

Four-year-olds Darrell and Jessica are pretending Blue's Clues®. They have drawn a "map" and have pencils and pads ready to "write" the clues, even a magnifying glass. They are having fun!

But then things get complicated, changing fast, as interaction often does. They are trying to decide what to hunt for to bring back to Circle Time. Jessica suddenly decides that she should be Blue, because she is a girl, and that she doesn't want to hunt for clues at the bakery; she wants to go to the music store instead. Darrell shouts, "No way, you have to be Joe!" After a second he added, with a smile, "Anyway, I wanted to do clues for doughnuts—they're your favorite, too!"

At the same time, Jimmy, who had been nearby, runs over and whines that he wants to join in. No way!! Darrell, still concentrating on Jessica's demands, doesn't want Jimmy to join them—he's too much of a baby. Almost simultaneously, Jessica burts her hand with one of the pencils, and starts to cry. And Tomas, the class bully, approaches, laughing at four-year-olds making believe and crying.

This was much more than a simple playtime. Imagine the skills of emotional competence that are needed to successfully negotiate these interactions! Within a 5-minute play period, a variety of emotional competencies are called for if the social interaction is to proceed successfully. For example, Darrell has to know how to resolve the conflict with Jessica, react to Jimmy without hurting him too much, and "handle" Tomas safely. More generally, Darrell needs to learn how to express his emotions in socially appropriate ways, handle provocation, engage with others positively, and build relationships. Taken together, these abilities are vital for how Darrell gets along with others, understands himself, and feels good in his world, within himself, and with other people.

Many young boys and girls Darrell and Jessica's age are learning to cope with their own emotions and with the many difficulties that arise when dealing with other people. More specifically, emotionally competent young children begin to:

- experience and purposefully express a broad variety of emotions, without incapacitating intensity or duration.
- understand their own and others' emotions
- deal with and regulate their emotions—whenever emotional experience is "too much" or "too little" for themselves, or when its expression is "too much" or "too little" to fit with others' expectations.

These components—experiencing, expressing, understanding, and regulating emotions—form the foundation for the theoretical precepts and empirical findings that will be communicated in this chapter.¹ The first component of emotional competence to be discussed is emotional expressiveness.

EMOTIONAL EXPRESSIVENESS

Many emotion theorists currently take a functionalist view of expressiveness—what, specifically, does the expression of emotions "do for" a child and his/her social group? Most importantly, the expression of emotion signals whether the child or other

people need to modify or continue their goal-directed behavior (Campos, Mumme, Kermoian, & Campos, 1994). Hence, such information can shape the child's own behaviors. An example is anger—if a girl experiences anger while playing at the puzzle activity table with another, she may try to avoid the other child the next day, and even tell her mother “I don't want *her* to come to my birthday party.” The experience of anger gave her important information that affects her subsequent behavior.

Additionally, emotions are important because they provide social information to other people, and affect others' behaviors. Peers benefit from witnessing other children's expressions of emotion. When the irritated girl's companion witnesses the social signal of her anger, for example, she may know from previous experience whether her most profitable response would be to fight back or to retreat.

In terms of specific expressive skills of emotional competence, young children are learning to use emotional communication to express clear nonverbal messages about a social situation or relationship—for example, stamping feet or giving a hug. They also develop empathic involvement in others' emotions—for example, patting a classmate when she falls down and bangs her knee. Furthermore, they display complex social and self-conscious emotions, such as guilt, pride, shame, and contempt in appropriate contexts.

These emotions need to be expressed in keeping with one's goals, and in accordance with the social context. That is, emotional competence includes expressing emotions in a way that is advantageous to moment-to-moment interaction and relationships over time. This is no small task, because the goals of self and of others must be coordinated. Darrell is well liked by the other children in his kindergarten class, in part, because of his generally pleasant, happy demeanor. When he approaches a group of other children to play, for example, his typical emotional expressiveness is confident, content, and enthusiastic—making it possible for him not only to enjoy playing *Blue's Clues*® today but also to remain friends with Jessica through the second grade.

But exactly what affective message should be sent, for successful interaction? Children slowly learn which expressions of which emotions facilitate specific goals. Jimmy learns that his whiny voice tones, downcast face, and slightly averted body posture are not associated with successful entry into play. Young children also learn that the appropriate affective message is the one that “works” in a particular setting or with a specific playmate. Jimmy may learn that a smile and otherwise calm demeanor is the better key to unlock the door to shared play with Darrell and Jessica; on the other hand, if he needs to defend himself, an angry scowl may get Tomas to back off, at least temporarily.

Children also learn how to send the affective message convincingly. Method, intensity, and timing of an affective message are crucial to its meaning, and eventual success or failure. Darrell has learned that showing slight annoyance for a short while over his disagreement with Jessica is very different than remaining very angry with her for days.

Emotional expressiveness can become even more complex during early childhood. Young children are beginning to realize that a person may feel a certain way “on the inside,” but show a different outward demeanor (Denham, 1998). In particular,

they are learning that overt expression of socially disapproved feelings may be controlled, while more socially appropriate emotions are expressed. For example, Darrell at first showed his annoyance about changing the goal of *Blue's Clues*®, but then smiled at Jessica; his charm probably allows him to get his way.

Thus, there are times when real affective messages are not appropriate. Some are relevant to the situation but not the context, and some irrelevant ones need to be masked. For example, disappointment and even rage at being reprimanded by a parent or teacher may be relevant—that is, the adult has indeed blocked the child's goal, as when Darrell's teacher says it is time to clean up and stop playing *Blue's Clues*®—but such anger with adults is usually imprudent to express. Anxiety when playing a new game is probably irrelevant to the goal of having fun, and needs to be suppressed. So, when real affective messages are inappropriate, “false” messages also must be managed and one must keep in mind the constraints of both self-protective and prosocial display rules. For example, Darrell controlled his feelings of fear when Tomas approached, in favor of showing a neutral expression that masked his internal shakiness; this tactic kept him safer.

Finally, and most difficult, one must consider *unique* characteristics of interaction partners and their interpersonal interchange (Halberstadt, Denham, & Dunsmore, 2001). As he enters the primary grades, Darrell may better understand some ways to maintain peaceful interchanges with Tomas. For example, he may know that Tomas has a lot of bullying bluster, but that unlike other mean kids Darrell knows, he can be diverted by a discussion of his favorite topic, dinosaurs. Darrell knows unique emotional information about Tomas that helps them interact more successfully.

What Are the Implications of Emotional Expressiveness for Getting Along Socially and Academically?

At a simpler, more outcome-oriented, level, emotional expressiveness refers to the individual child's profile of frequency, intensity, or duration of both basic and complex emotions—happiness, sadness, anger, fear, guilt, and empathy, for example. Preschoolers' expression of specific emotions, especially their enduring patterns of expressiveness, relates to their overall success in interacting with peers (i.e., peer status) and to their teachers' evaluation of their friendliness and aggression. *Positive* affect is important in the initiation and regulation of social exchanges; sharing positive affect may facilitate the formation of friendships, and render one more likable (Denham, McKinley, Couchoud, & Holt, 1990; Park, Lay, & Ramsay, 1993; Sroufe, Schork, Motti, Lawroski, & LaFreniere, 1984). Conversely, *negative* affect, especially anger, can be quite problematic in social interaction (Denham, McKinley, et al., 1990; Lemerise & Dodge, 2000; Rubin & Clark, 1983; Rubin & Daniels-Beirness, 1983).

Children who show relatively more happy than angry emotions: (a) are rated higher by teachers on friendliness and assertiveness, and lower on aggressiveness and sadness; (b) respond more prosocially to peers' emotions; and (c) are seen as more likable by their peers (Denham, 1986; Denham, McKinley, et al., 1990; Denham, Renwick, & Holt, 1991; Eisenberg et al.,

1997; Rydell, Berlin, & Bohlin, 2003; Sroufe et al., 1984; Strayer, 1980). Sadness or fear, whether observed in the classroom or in interaction with mother, is related to teacher ratings of withdrawal and internalizing difficulties (Denham, Renwick, & Holt, 1991; Rydell, Berlin, & Bohlin, 2003). Moreover, young children who respond to the emotional expressions of others by sharing positive affect and/or reacting prosocially to others' distress, are more likely to succeed in the peer arena; teachers and peers alike view them as more socially competent than their more antisocial, "mean" counterparts.

Finally, there is evidence (Denham et al., 2001) that emotionally negative preschoolers tend to engage with equally negative playmates, and show increasingly negative evaluations of social competence. Some forms of such emotional negativity can be quite context specific. "Gleeful taunting" may look like positive expressiveness on its surface; when expressed during conflict, however, it is really a form of emotional aggression that predicts negative peer status and teacher ratings more strongly even than anger during conflicts (Miller & Olson, 2000).

In short, young children's own expressed emotions are related to evaluations of their social competence made by important persons in their widening world—happier children fare well, and angrier or sadder children worse. It is easy to envision why children's patterns of emotional expressiveness provide such potent intrapersonal support for, or roadblocks to, interactions with age-mates (Campos & Barrett, 1984). A sad or angry child, with nothing pleasing her, is less able to see, let alone tend to, the emotional needs of others. And it is no wonder when her peers flatly assert, as did one of our 3-year-old research participants, "She hits. She bites. She kicked me this morning. I *don't like* her." Conversely, a happier preschooler is one who can better afford to respond to others.

In terms of the connection between emotional expressivity and academic readiness, school adjustment, or other aspects of cognitive achievement, Blair (2002) notes that young children's emotional expressivity has clear implications for brain developments associated with school success, particularly in those areas of the cortex involved in self-regulated learning. Such emotion-related areas of the brain also are more mature than more cognitive areas and thus are in key position to play a central role in self-regulation (Nelson, 1994).

The rapidity of onset, intensity, and duration of both positive and negative emotions are important to learning and self-regulation. In particular, children who express more positive emotions and moderately intense emotions overall are perceived by their teachers as more teachable, and they achieve more in school (Keogh, 1992; Martin, Drew, Gaddis, & Moseley, 1988; Palinsin, 1986). In fact, those who are less emotionally negative during interactions with the mothers on the first day of kindergarten show better academic performance through eighth grade (Morrison, Rimm-Kauffman, & Pianta, 2003). Positive emotion is conducive to task engagement and persistence, skills that serve the young schoolaged child very well. In contrast, neurological processes associated with expression of negative emotion, particularly fear, interfere with cognition. Although the frequent incidence of intense anger is clearly deleterious to social relationships, its role in self-regulation is as yet less clear.

Emotion expression that is visible to others in the child's milieu exists hand-in-hand with internal emotion experience and

its regulation. Because emotional experience assists in organizing and directing cognition (Blair, 2002), it is important for the child to modulate both their experience and expression of emotion in order to interact and to learn. Thus, emotion regulation is the second component of emotional competence to be discussed.

EMOTION REGULATION

Attending school is a particularly important transition that taxes young children's emotion regulatory skills. Play with peers is replete with conflict; unlike adults, preschool- and primary-aged peers are neither skilled at negotiation, nor able to offer assistance in emotion regulation. New cognitive tasks require sustained attention, and the challenges of classroom rules are hard to follow when a child is preoccupied with feelings. At the same time, the social cost of emotional dysregulation is high with both teachers and peers. Initiating, maintaining, and negotiating play, earning acceptance, and succeeding at literacy and numeracy skills, all require young children to "keep the lid on" (Raver, Blackburn, & Bancroft, 1999).

Thus, because of the increasing complexity of young children's emotionality and the demands of their social world—with "so much going on" emotionally—some organized emotional gatekeeper must be cultivated. When the intensity, duration, or other parameters of the experience and expression of emotion are "too much" or "too little" to meet goals and expectations of the child and/or social partners, emotion regulation is needed (Cole, Martin, & Dennis, 2004; Denham, 1998; Saarni, 1999; Thompson, 1994). Candidates for regulation include those emotions that are aversive or distressing and those that are positive but possibly overwhelming, as well as emotions that need to be amplified, for either intra- or interpersonally strategic reasons.

To succeed at emotion regulation, several abilities are key (Halberstadt, Denham, & Dunsmore, 2001). One must experience clear rather than diffused feelings, to know what to regulate. Managing "false" signals is also crucial (e.g., Jimmy had a sudden "tummy rumble" as he neared the others playing *Blue's Clues*®, but ignored it as not pertinent. This did *not* mean he was afraid!). One also can use false self-signals to facilitate communication and achieve a goal. For example, a falling boy feels mad at himself because others are watching, as well as hurt. Maybe he can "use" his anger to motivate a quick, albeit hobbling, recovery. In sum, children learn to retain or enhance those emotions that are relevant and helpful, to attenuate those that are relevant but not helpful, to dampen those that are irrelevant. Moderating emotional intensity when it threatens to overwhelm, enhancing it when necessary to meet a goal, and shifting between emotion states via coping help children to maintain genuine and satisfying relationships with others, pay attention to preacademic tasks, and learn the rules of both social and intellectual experiences in varying settings. For example, Darrell may know that showing too much anger with Jimmy will hurt this boy's feelings but showing too *little* angry bravado with Tomas could make him more of a target. He also may know when a conspiratorial smile may get even this bully on his side.

How Is Emotion Regulation Accomplished?

What do children do to regulate emotions? First, the experience of emotion (i.e., sensory input and physiological arousal) may need to be diminished or modulated. The child may modulate the emotional experience via self-soothing. Or, she may even alter the discrete emotion being expressed; for example, a child feeling anxious during group times in her preschool may smile to convince herself and others that she is happy. Others may avoid situations, or try to change them, to avoid overarousal.

Perceptual and cognitive emotion regulation is also possible: a child may relinquish a goal, choose a substitute goal, or think through new causal attributions, which help her to feel more comfortable in her world. For example, a preschooler who is sad about not going swimming may say to herself, "I didn't want to go anyway." Refocusing attention is a useful perceptual means of regulating emotional experience. When trying to join Jessica and Darrell, Jimmy may focus on the game's "props" rather than the two children whose higher social status makes him uncomfortable. Problem-solving reasoning also can be particularly useful as a regulatory coping strategy. When Darrell becomes irritated with Jessica, he may suggest a compromise that makes them both feel better. Finally, children also *do* things to cope with the experience of emotion—actively fix the problem, look for support from adults, lash out aggressively, or cry even harder to vent emotion or get help (Eisenberg, Fabes, Nyman, Bernzweig, & Pinuelas, 1994).

These emotion regulation strategies are not automatically available, however. Preschoolers often need external support to become skilled at such regulation; caregivers' support allows their strategies to be maximally effective. Parents and teachers assist them in cognitive coping strategies they will eventually use themselves (e.g., purposely redeploying attention). Adults also use emotion language to help children regulate emotion by identifying and construing their feelings (e.g., "this will only hurt a little"), and processing causal associations between events and emotions. They also demonstrate behavioral coping strategies when they problem solve around emotional situations, or structure their child's environment to facilitate regulation (e.g., a mother avoids situations she knows will frighten her daughter, leaving her shaky and less able to process information).

Over time, preschoolers and children in primary grades become more able to make their own independent emotion regulation attempts (Grolnick, Bridges, & Connell, 1996). Their awareness of the need for, and their use of, emotion regulation strategies increase. Increased cognitive ability and control of both attention and emotionality (Lewis, Stanger, & Sullivan, 1989; Lewis, Sullivan, & Vasen, 1987; Shonkoff & Phillips, 2000), assist them in these accomplishments. Over time, they see the connections between their emotion regulation efforts and changes in their feelings, and become more flexible in choosing the optimal ways of coping in specific contexts. Thus, they begin to use very specific coping strategies for regulation—problem solving, support seeking, distancing, internalizing, externalizing, distraction, reframing or redefining the problem, cognitive "blunting," and denial. Many such strategies are indeed quite useful for emotion regulation; they are sequentially associated with decreased anger (Gilliom, Shaw, Beck,

Schonberg, & Lukon, 2002). Accordingly, the behavioral disorganization resulting from strong emotion decreases dramatically around the transition to school.

What Are the Implications of Emotion Regulation for Getting Along Socially and Academically?

It is clear that emotion regulation is a crucial ability for managing the demands inherent in interpersonal situations (Parker & Gottman, 1989). When the young child begins to regulate his or her own emotions, he or she begins to show more socially appropriate emotions (Kieras, Tobin, & Graziano, 2003). Furthermore, specific emotion regulation strategies are related to specific social behaviors; for example, reliance on attention-shifting emotion regulation strategies is associated with low externalizing problems and high cooperation, whereas reliance on information gathering strategies is correlated with assertiveness (Gilliom et al., 2002). Not surprisingly, then, emotion regulation is related to having friends in preschool (Walden, Lemerise, & Smith, 1999), as well as to teacher-rated socially appropriate behavior in both preschoolers and primary school children (Eisenberg et al., 1993; Eisenberg et al., 1997, 2001, 2003). In contrast, lack of emotional and behavioral regulation as early as 2 years predicts externalizing problems at 4 years, even with aggressiveness at age 2 controlled (Rubin, Burgess, Dwyer, & Hastings, 2003). Lack of regulation of both exuberant positive emotions and fear, respectively, are related to preschoolers' externalizing and internalizing difficulties (Rydell et al., 2003). In sum, children who regulate emotions capably are seen as functioning well socially by adults and peers, across a range of ages from preschool to the end of grade school. Inability to regulate emotions figures in the trajectory toward behavior difficulties at school entry and thereafter.

As already implied (Kieras et al., 2003), emotion regulation and expressiveness often operate in concert. Children who experience intense negative emotions, *and* are unable to regulate their expressions of such emotion, are especially likely to suffer deficits in their social competence (Contreras, Kerns, Weimer, Gentzler, & Tomich, 2000; Hubbard & Coie, 1994). Specifically, young children who are most emotionally intense, and poorly regulate this intense emotion, show the most difficulty in maintaining positive social behavior and have more troubled relationships with peers (Eisenberg, Fabes, Guthrie et al., 1996; Eisenberg et al., 1995; Eisenberg et al., 1997; Murphy, Shepard, Eisenberg, Fabes, & Guthrie, 1999). In other research (Denham et al., 2003; Denham, Blair, Schmidt, & DeMulder, 2002), kindergarten teachers saw children who had shown much anger, *and* did not regulate it constructively during preschool, as having problems with oppositionality 2 years later, at the end of kindergarten. In contrast, good emotion regulation skills, which caring adults can teach, buffer highly emotionally negative children from peer status problems (Eisenberg, Fabes, Guthrie et al., 1996; Eisenberg et al., 1995; Eisenberg et al., 1997; Murphy et al., 1999).

In terms of the implications of emotion regulation for academic readiness, school adjustment, or other aspects of cognitive achievement, it seems clear that the goals of emotional

experience and expression can compete with higher order cognitive processing demands. In particular, when the child regulates emotion in reactive ways, through withdrawal, hypervigilance, or venting, rather than through effortful processes involving higher cognitive abilities like memory, attention, or planning (e.g., problem solving, distraction, reframing the problem), these higher-order cognitive abilities are underused and consequently underdeveloped (Blair, 2002; Shonkoff & Phillips, 2000). Caroline's attention and energy for her entire 3-hour morning in preschool is consumed with fussing about getting her way, her terrible cold, and who gets to play with certain toys; she probably doesn't have the cognitive "space" left over to attend to and process information about the stories, rhymes, and songs her teachers introduce.

The conscious appraisal of emotions is considered by some to be beyond the purview of preschoolers (Blair, 2002). This assertion may be true of young children's abilities to reflect on emotions when experiencing them, although it could be argued that some emotional experiences are not completely subcortically driven, even during this age period (Denham, 1998). Whichever contention is closer to the truth, it is probably indisputable that children are coming to understand much about emotions during early childhood. This knowledge may be most available to them during "cool," nonemotional moments, but forms an important foundation for the development of conscious, "online" emotion appraisal for both self and others. Thus, we now turn to an examination of emotion knowledge during early childhood.

EMOTION KNOWLEDGE

As active participants in the social world, young children continually make attributions about their own and others' behaviors, including emotional ones (Dodge, Pettit, McClaskey, & Brown, 1986; Miller & Aloise, 1989). In fact, emotions, whether one's own or others', are central experiences in the social lives of young children from age 2 onward. In spontaneous conversations they talk about and reflect on their own and others' feelings, and discuss emotions' causes and consequences (Dunn, 1994).

Noticing an emotional signal is the first aspect of emotion knowledge (Halberstadt et al., 2001); this awareness may develop at different rates for different people. In general, however, missing the very existence of emotional information definitely puts one at a disadvantage (e.g., if a boy does not attend to his mother's muted anger after his misbehavior, he may err seriously by laughing at her).

Specific Emotion Knowledge Skills of Early Childhood: Expressions, Situations, Causes, Consequences

Once perceived, affective messages must be interpreted accurately; again, as with all levels of affective information

processing, errors can lead to both intrapersonal and social difficulties. The first and only time that Darrell misattributed Tomas' "big shot" grimace as happiness was also the first and only time that Tomas actually punched him.

After noticing that there is an emotional signal to interpret, children must be able to (a) label emotional expressions both verbally and nonverbally; (b) identify emotion-eliciting situations; and (c) infer the causes of emotion eliciting situations, and the consequences of specific emotions. Thus, preschoolers do become increasingly adept at labeling emotional expressions. Specifically, their abilities to verbally label and nonverbally recognize emotional expressions increase from 2 to 4.5 years of age (Denham & Couchoud, 1990). Emotional situations and attendant facial expressions may be learned together, with the first distinction learned between being happy and not being happy, feeling good versus feeling bad (Bullock & Russell, 1984, 1985). Early recognition of happy expressions and situations is greater than recognition of negative emotions, with understanding anger and fear slowly emerging from the "not happy/sad" emotion category (see also Camras & Allison, 1985; Stifter & Fox, 1987). Early in the preschool period, children's emotion categories are broad, "fuzzy," often including peripheral concepts, especially for negative emotions.

However, simply understanding expressions of emotion is not always definitive. In the overall effort to comprehend one's own or others' emotions, situational cues can be very important, especially when expressions may be masked or dissembled. Understanding the events that can elicit emotion, as well as accompanying expressions, increases preschoolers' flexibility in interpreting emotional signals in their environment. For example, Jessica may note, "When we don't listen, our teacher feels bad," and adjust her behavior, even if her teacher's negative expressions are very muted.

As with expressions, preschoolers initially tend to have a better understanding of happy situations compared to those that evoke negative emotions (Fabes, Eisenberg, Nyman, & Michealieu, 1991). They gradually learn to differentiate among negative emotions; for example, realizing that one feels more sad than angry when getting "time out" from one's preschool teacher. Little by little, children separate angry situations from sad ones (Denham & Couchoud, 1990; Fabes et al., 1991), with fear situations presenting the most difficulty (Brody & Harrison, 1987). They also become increasingly capable of using emotion language to describe emotional situations (Fabes, Eisenberg, McCormick, & Wilson, 1988); for example, reminiscing about family sadness when a pet died.

Young children go even further than recognizing the expressions and eliciting situations for discrete emotions—they make more complex attributions about emotions' causes, and reason more intricately about their consequences for behavior. Using everyday experiences to create theories about the causes of happiness, sadness, and anger, preschoolers, especially those four year olds and older, cite causes for familiar emotions that are similar to ones given by adults (Fabes et al., 1988; Fabes et al., 1991; Strayer, 1986). If asked, Jessica could probably point out that her older brother Brent gets mad because he doesn't want to go to school, but that Daddy is happy to go to work. Preschoolers also ascribe different causes to different

emotions, building on early understanding of more general emotional situations to create causal scenarios for specific persons' particular feelings (Denham & Zoller, 1991; Dunn & Hughes, 1998).

Through their increased social sensitivity and experience, older preschoolers also develop strategies for appraising others' emotions when available cues are less salient and consensual. Five-year-olds are more likely than 3- and 4-year-olds to focus their explanations of emotions on personal dispositions as opposed to goal states—"She had a bad day." instead of "She didn't want Billy to play with her." Knowing more abstract causes for emotion, less idiosyncratic than younger preschoolers', can be useful in actual interaction with friends (Fabes et al., 1991).

Sometimes one also must understand the consequences of emotion. Young children do realize the consequences of many emotions; for example, a 3-year-old knows that a parent will comfort her when she is upset. Clearly, knowing why an emotion is expressed (its cause), and its likely aftermath (its consequences in the behavior of self or others), aid a child in regulating behavior and emotions, as well as reacting to others' emotions. In short, discerning consequences of emotion can help a child know what to do when experiencing or witnessing emotion.

Thus, preschoolers learn to distinguish the causes of emotions from their consequences (Denham, 1998; Russell, 1990); for example, fathers "dance" when they're happy, mothers "lay in their bed" when sad, and fathers "give spankings" when angry. What do people do as a consequence of someone else's emotions? Four- and 5-year olds attribute plausible, nonrandom parental reactions to their own emotions (Denham, 1997), such as their parents' matching their own happiness; performing pragmatic action after sadness; punishing anger; and comforting or acting to alleviate the fear-eliciting stimulus. These findings suggest that preschoolers have solid conceptions of the consequences of emotions for both self and others.

Specific Emotion Knowledge Skills of Early Childhood: Complex Causal Parameters

To even more accurately interpret emotional information, information specific to a particular person in a particular situation may be needed. Although this aspect of emotion knowledge is very important, it can be quite difficult to acquire and use. In a series of thought-provoking inquiries, Gnepp described the information needed in deciding what emotion another person is experiencing or will experience in a given situation (Gnepp, 1989; Gnepp & Chilamkurti, 1988; Gnepp & Gould, 1985; Gnepp, McKee, & Domanic, 1987). Important elements of emotional information are whether (a) the situation is equivocal (i.e., could elicit more than one emotion), (b) there are conflicting cues in the person's expressive patterns and the situation, and (c) person-specific information is needed.

Regarding *equivocality*, different people feel different emotions during some emotion-eliciting events. One child is happy to encounter a large, friendly looking dog, panting and "smiling"

with mouth open, but another child is terrified. More personal information is needed to know how each person is feeling, and preschoolers are becoming aware of this need. They are beginning to recognize the inherent equivocality of some emotion situations, even if they cannot always identify it spontaneously. Ability to detect and use information about equivocal situations continues developing through early and middle childhood (Gnepp et al., 1987).

Even when a situation is not emotionally equivocal, the person experiencing the event may react *atypically*—there may be a conflict between situational and expressive knowledge. A person may smile when seeing a spider dropping into the room on a strand of web. However, interpreting a reaction as atypical requires a rather sophisticated decision, namely *resolving* conflicting expressive and situational cues to emotions rather than relying on one cue or the other. Young children do not perform such problem solving easily or well; they usually still prefer simple, script-based understanding emotion.

Over time, however, older preschoolers do begin to weight expressive and situational sources of emotional information strategically, much as they come to utilize multiple sources of information in nonsocial cognitive tasks (Hoffner & Badzinski, 1989; Wiggers & Van Lieshout, 1985). One of their means of resolving conflicting emotion cues is attributing an idiosyncratic perspective—"She is smiling because she likes shots." Such attribution of idiosyncrasy may be a precursor of understanding the psychological causes of atypical reactions to emotion-eliciting situations (Gnepp, 1989), an ability fully attained only during gradeschool.

If using complex information to attribute emotions to others is so difficult, what types of personal information are preschoolers able to use successfully in interpreting atypical emotions? First, they can use *unique normative information*, such as, "Sarah lives in Green Valley, where all people are friendly with tigers and play games with them all the time" (Gnepp, Klayman, & Trabasso, 1982). When asked how Sarah would feel, preschoolers used unique information about liking tigers to modify their responses to a normally unequivocal situation. Preschoolers are also becoming aware that cultural categories such as age and gender moderate emotions experienced in differing situations. For example, a boy might not be overjoyed to receive a doll as a gift.

Second, information about *personality characteristics* that are stable across time and situations can be especially useful. But in Gnepp's studies, only children six years old and older used such information to answer questions about feelings in situations that normally could be considered unequivocal (e.g., "How would a clownish person feel if he wore one black shoe and one white to school, and everybody laughed?") (Gnepp & Chilamkurti, 1988).

Third, other *person-specific information* is sometimes needed. Gnepp and colleagues (1982) provided stories in which characters' behavioral dispositions modified normally strong emotion-event associations. "Mark eats grass whenever he can. It's dinner time and Mother says they're having grass for dinner. How will Mark feel?" Four- and 5-year-olds were able to utilize such information, with responses reflecting the unique perspective of the character in the story.

Specific Emotion Knowledge Skills of Early Childhood: Dissemblance, Display Rule Usage, and Mixed Emotions

It is tricky to interpret true *or* false emotional signals from others while interacting with them. One must be able to ignore false affective messages if ignoring benefits one's goals, or to accept them as real if that is advantageous. One must also: (a) pick up real, relevant, helpful messages; (b) ignore real but irrelevant messages; and (c) somehow deal with real and relevant but not helpful messages. For example, perhaps Kristen's physiognomy, especially her droopy eyebrows and down-turned lips, looks rather sad naturally; her playmates need to know this and not try to comfort her, or worse yet, avoid her. Darrell needs to ignore Tomas's low level glares as he makes an effort to play with him.

Before to understanding the actual display rules that people use for minimizing, or substituting one emotion for another, and when they use them, young children understand the effort to completely hide, or mask, emotion. Masking emotions can be advantageous to young children as soon as they realize that they can pose expression voluntarily. Knowing when and when not to show emotions is immeasurably valuable in maintaining social relations. Such dissemblance does not require knowledge of display rules that are normative to a family or culture, but merely the need to send a signal that differs from the emotion felt. Knowledge of dissemblance continues to develop through gradeschool (Gross & Harris, 1988).

Understanding of specific cultural or personal display rules, whether prosocial or self-protective, appears rudimentary during early childhood (e.g., Gnepp & Hess, 1986), even though children already modify expressiveness to fit such rules. Despite this assertion, close to half the preschool children in Gnepp and Hess' (1986) study cited at least verbal, if not emotional, rules for regulating emotion (i.e., verbal masking: "I don't care that I lost this silly contest"). Even more important, investigators using more developmentally appropriate methodological simplifications have found that even young children may begin to understand display rules as they begin to use them (Banerjee, 1997; Josephs, 1994; Rozek, 1987), perhaps beginning with emotions subject to early socialization pressure, such as anger (Feito, 1997).

For older children and adults, it is not uncommon to experience "mixed emotions," as when Darrell's older sister is somewhat amused at her younger brother's antics, but mostly annoyed when he tries to leap over her backpack but lands on it, breaking the earphones inside. Gradeschoolers are generally considered to show the first "true" understanding of simultaneous and ambivalent emotions (Harter & Whitesell, 1989). But because young children's expressiveness is becoming more intricate as they leave the preschool period, they may begin to experience simultaneous emotions and ambivalence themselves, and thus begin to understand them. The findings for one key set of more recent studies shows that procedural improvements preserve Harter's sequence but accelerate it (Wintre, Polivy, & Murray, 1990; Wintre & Vallance, 1994). Again, asking questions via more age-appropriate methodology has revealed that preschoolers have more knowledge about mixed emotions than previously assumed (Donaldson & Westerman, 1986; Kestenbaum & Gelman, 1995; Peng, Johnson, Pollock,

Glasspool, & Harris, 1992). However, as with other complex aspects of emotion knowledge, young children can recognize and explain conflicting emotions before they can spontaneously talk about them (Gordis, Rosen, & Grand, 1989).

Specific Emotion Knowledge Skills of Early Childhood: Complex Emotions

Another big accomplishment in the domain of emotion knowledge is understanding the more complex emotions, particularly sociomoral emotions such as guilt and shame, and also such self-referent and social emotions as pride, embarrassment, and empathy. For example, English, Dutch, and Nepali 5- to 14-year-olds extended their causal understanding of emotions to social emotions such as pride, worry, and jealousy, complex emotions that cannot be linked with a discrete facial expression (Harris, Olthof, Meerum Terwogt, & Hardman, 1987).

Because young children and their peers are beginning to express complex emotions, they have some understanding of them, but it is still quite limited, and the development of such understanding proceeds quite slowly. Even older preschoolers are unable to cite pride, guilt, or shame in success, failure, and transgression experiences—pride at a gymnastic feat or resisting temptation, or guilt for stealing a few coins out of a parent's wallet—until at least age 6 (Arsenio & Lover, 1995; Berti, Garattoni, & Venturini, 2000; Harter & Whitesell, 1989; Nunner-Winkler & Sodian, 1988). They are more likely to report simpler, noncomplex emotions.

In summary, young children acquire much emotion knowledge to assist them in social interactions with family and peers. However, it is equally clear that many of the finer nuances of emotion knowledge are either just emerging for them as they enter elementary school, or not yet within their repertoire at all.

What Are the Implications of Emotion Knowledge for Getting Along Socially and Academically?

Because personal experiences and social interactions or relationships are guided, even defined, by emotional transactions (Arsenio & Lemerise, 2001; Denham, 1998; Halberstadt et al., 2001; Saarni, 1999), understanding of emotions figures prominently in personal and social success. Specifically, succeeding at a crucial development task of the early childhood period, moving into the world of peers (Gottman & Mettetal, 1986; Parker & Gottman, 1989), calls for emotion knowledge. For example, if a preschooler sees one peer bickering with another, and correctly deduces that the peer suddenly experiences sadness or fear, rather than intensified anger, she may comfort her friend rather than retreat or enter the fray. The youngster who understands emotions of others also should interact more successfully when a friend gets angry with him or her, and can be more empathic with a peer gets hurt on the playground. Talk about one's own emotions can aid in negotiating disputes with friends. Darrell knows that it can be helpful to tell Jessica, "Hey, I was Blue® first. Don't be so mean and make me mad."

In these ways, emotion knowledge supports young children's attempts to deal with and communicate about the emotions

experienced by themselves and others, and allows them to selectively attend to other aspects of social experiences (Denham, 1998). Accordingly, children who understand emotions are more prosocially responsive to their peers, and rated as more socially competent by teachers and peers alike (Denham, 1986; Denham & Couchoud, 1991; Denham et al., 1990; Roberts & Strayer, 1996; Smith, 2001; Strayer, 1980).

More specifically, dyad members' emotion situation knowledge and child-friend emotion conversation are involved in conflict resolution, positive play, cooperative shared pretend, and successful communication (Brown, Donelan-McCall, & Dunn, 1996; Brown & Dunn, 1991; Dunn, Brown, & Maguire, 1995; Dunn & Cutting, 1999; Dunn & Herrera, 1997). Preschoolers' understanding of emotion expressions and situations are also related to use of reasoned argument with, and caregiving of, siblings (Dunn, Slomkowski, Donelan, & Herrera, 1995; Garner, Jones, & Miner, 1994). As well, preschoolers' spontaneous use of emotion language is related to higher quality peer interactions and greater peer acceptance (Fabes, Eisenberg, Hanish, & Spinrad, 2001; Garner & Estep, 2001). Furthermore, young children's understanding of emotion situations is *negatively* related to nonconstructive anger during peer play (Garner & Estep, 2001). Finally, understanding mixed emotions in kindergarten is associated with understanding friends, as well as expecting teachers to react benignly to one's mistakes (Cutting & Dunn, 2002; Dunn, Cutting, & Fisher, 2002).

More recent research with slightly older children (Dodge, Laird, Lochman, Zelli, & Conduct Problems Prevention Research Group, 2002; Mostow, Izard, Fine, & Trentacosta, 2002) has shown that emotion knowledge contributes to social problem solving and/or skilled social behavior, which then predicts later social competence, particularly sociometric status with peers. These new reports are exciting, in that they add longitudinal and school success elements to the current arguments, and show more about *how* emotion knowledge can augment children's performance with peers (i.e., via reasoning about social encounters and choice of positive social behaviors).

Lack of Emotion Knowledge and Unsuccessful Social Interaction

In contrast, preschoolers with identified aggression and oppositionality or peer problems have been found to show specific deficits in understanding emotion expressions and situations, both concurrently and predictively (Denham et al., 2003; Denham, Blair et al., 2002; Denham, Caverly et al., 2002; Hughes, Dunn, & White, 1998). Furthermore, low-income, predominantly African-American, first graders' difficulties in understanding emotional expressions also were related to their problems with peers and social withdrawal, even when preschool verbal ability and self control measures were already accounted (Izard et al., 2001; Schultz, Izard, Ackerman, & Youngstrom, 2001; Smith, 2001).²

Difficulties in 3-year-old emotion understanding also predicted inability to attribute mixed feelings to victimizers in

kindergarten (Dunn, Brown et al., 1995). Children with such difficulties may have more trouble understanding that victimizing another can yield both happiness (at one's power) and sadness (at the victim's distress).

Arsenio, Cooperman, and Lover (2000) have extended these general lines of inquiry. In their study, aggression mediated the association between lack of emotion expression and situation understanding and lower levels of peer acceptance; that is, developmental delays in emotion knowledge predicted aggression, which was associated with peers' dislike. Emotion knowledge deficits' relation to aggressive behavior explained their relation to lower peer status. Although these results were contemporaneous, the patterns of association suggest that lack of emotion knowledge is associated with impairment in behavioral responses to playmates, and that these impaired behavioral responses are seen as unlikable by these same playmates.

Other research examines, in more detail, the implications of specific errors in emotion understanding made by young children, which may be pivotally related to risk for aggression problems, such as the hostile attribution bias (Dodge & Somberg, 1987). For example, Barth and Bastiani (1997) uncovered a subtle relation that may underlie aggressive children's social difficulties: preschoolers' mistaken perceptions (overattributions) of peers' expressions as angry—a recognition bias similar to the hostile attribution bias of later years were associated with negative social behavior. Errors in emotion understanding, especially such overattribution of anger, are also concurrently related to preschool aggression and peer rejection (Denham et al., 1990; Schultz, Izard, & Ackerman, 2000; Spence, 1987).

In sum, these patterns of results suggest that deficits in early childhood emotion knowledge are related to children's social and behavior problems preceding, and extending into, the primary grades. Boosting such emotion knowledge, and doing so before school entry, thus increases in importance. In the future, ascertaining these early social cognitive difficulties could make it easier to intervene with children before their difficulties with aggression become entrenched.

Finally, the interrelationships of all aspects of emotional competence must again be underscored (Halberstadt et al., 2001). As Dodge (1989) notes, emotion knowledge undoubtedly plays an important role in children's expressive patterns and their ability to regulate emotion; when a child knows, for example, that her playmate is delighted to have heaved the tricycle upright at last, she no longer is distressed herself, trying to figure out what to do with an angry friend. She can focus her attention on other aspects of the situation. Thus, because of the intricate interworkings of emotion knowledge, emotional expressiveness, and emotion regulation, it is no surprise that *both* deficits in emotion knowledge *and* underregulated expression of anger at age 3 to 4 predicted difficulties with teachers and peers 2 years later, in kindergarten (Denham, Caverly et al., 2002). More evidence is needed about the ways in which emotion knowledge and regulation work together during this age range, so that early childhood educators can refine social-emotional programming.

In terms of the contribution of emotion knowledge to school readiness and academic success, fewer research reports are

²It should be noted, however, that much still needs to be learned about the ways in which young children's language abilities work together with emotional and social competence to support or hinder early school success (Hyson, 2002).

available, but they are emerging. Recent studies have shown that emotion knowledge at the beginning of the Head Start year uniquely predicted, as did emotion regulation, year-end school adjustment (i.e., behavioral regulation, preacademic ability, compliance/participation, forming relationships, Shields et al., 2001). Furthermore, emotion knowledge during the preschool years contributes to the prediction of later academic competence even after controlling for the effects of verbal ability and emotional (Izard, 2002; Izard et al., 2001). In addition to the direct effects of emotion knowledge on academic outcomes, it also plays the role of mediator. In a longitudinal study of Head Start children, emotion knowledge in preschool mediated the effect of verbal ability on academic competence in third grade; that is, children with higher verbal ability in Head Start had greater emotion knowledge, which predicted third grade academic competence (Izard, 2002). More research in this area is sorely needed.

WHAT FUELS THE DEVELOPMENT OF EMOTIONAL COMPETENCE?

Both intrapersonal and interpersonal factors impact the developing competencies described here. First, intrapersonal contributors no doubt are important; abilities and attributes of the children themselves can either promote or hinder emotional competence. For example, some children are blessed with cognitive and language skills that allow them to better understand their social world, including the emotions within it, as well as to better communicate their own feelings, wishes, desires, and goals for social interactions and relationships (Cutting & Dunn, 1999). A preschooler who can reason more flexibly can probably also more readily perceive how another person might emotionally react to a situation in a different manner than he himself would; for example some people really are fearful of swimming pools, even though they delight *me*. In a similar manner, children with greater verbal abilities can ask more pointed questions about their own and others' emotions (e.g., "why is he crying?"), and understand the answers to these questions, giving them a special advantage in understanding and dealing with emotions. A preschooler with more advanced expressive language also can describe his/her own emotions more pointedly—"I don't *want* to go to bed! I am *mad!*"—which not only allows him/her to get their emotional point across but also allows for others to communicate with them.

Similarly, children with different emotional dispositions (i.e., different temperaments) are particularly well- or ill-equipped to demonstrate emotional competence. An especially emotionally negative child, for example, will probably find she has a greater need for emotion regulation, even though it is at the same time harder for her to do so. Such a double bind taxes her abilities "unhook" from an intense emotional experience (see, e.g., Eisenberg et al., 1993; Eisenberg et al., 1994; Eisenberg et al., 1997). Conversely, a child whose temperament predisposes him to flexibly focus attention on a comforting action, object, or thought, and shift attention from a distressing situation, is better able to regulate emotions, even intense ones.

SOCIALIZATION OF EMOTIONAL COMPETENCE

So, children come to their preschool years with particular intrapersonal factors well in place. These intrapersonal factors are either foundations of or roadblocks to emotional and social competence. Caring adults are faced with such children on a daily basis. What differences do our efforts make? How do we foster these emotional and social competencies that stand children in such good stead as they move into their school years?

Much of the individual variation in the components of children's emotional competence derives from experiences within the family and preschool classroom (Denham, 1998; Hyson, 1994). Important adults—and children—in each child's life have crucial roles in the development of emotional competence.

Socialization of emotions is ubiquitous in children's everyday contact with parents, teachers, caregivers, and peers. All the people with whom children interact exhibit a variety of emotions, which the children observe. Furthermore, children's emotions often require some kind of reaction from their social partners, and intentionally teaching about the world of emotions is considered by some adults to be an important area of teaching (Dix, 1991; Eisenberg & Fabes, 1994; Eisenberg, Fabes, & Murphy, 1996; Eisenberg et al., 1994; Eisenberg et al., 1999; Gottman, Katz, & Hooven, 1997). These three mechanisms describe socialization of emotion: modeling emotional expressiveness, reactions to children's emotions, and teaching about emotion (Denham, 1998; Denham, Grant, & Hamada, 2002; Eisenberg, Cumberland, & Spinrad, 1998; Halberstadt, 1991; Tomkins, 1991). Each of these mechanisms can influence children's emotional expression, understanding, and regulation, as well as social functioning.

Most of the extant research on the socialization of emotional and social competence involves young children and their parents. Of course, parents are not the only socializers of emotional competence. Others, including preschool teachers and day care caregivers, as well as siblings and peers, are important from the preschool years on. In the following, results regarding young children's interactions with their parents are most often reported, because by far the most research exists on these socializers. However, it is likely that many of the influences identified likely hold true for other adults in preschoolers' lives, as well. Where there is specific information on teachers, siblings, and peers, it is highlighted.

Modeling of Emotional Expressiveness

Children observe the ever-present emotions of adults, and incorporate this learning into their expressive behavior, often via affective contagion. They also vicariously learn *how* to exhibit emotional expressions, and *which* to express *when* and in what context (e.g., Denham, 1989; Denham & Grout, 1993; Denham, Mitchell-Copeland, Strandberg, Auerbach, & Blair, 1997).

Parents' emotional displays also foster their children's emotion knowledge, by telling children about the emotional significance of differing events, which behaviors accompany differing emotions, and others' likely reactions. By modeling various emotions, moderately expressive parents give children

information about the nature of happiness, sadness, anger, and fear—their expression, likely eliciting situations, and more personalized causes. Thus, adults' emotional expressiveness is associated with children's understanding of emotions as well as their expressive patterns (Denham & Couchoud, 1990; Denham & Grout, 1993; Denham et al., 1997; Denham, Zoller, & Couchoud, 1994; Liew et al., 2003).

A mostly positive emotional climate makes emotions more accessible to children, in terms of their own emotion regulation, emotion knowledge, and concomitant positive social behavior. Thus, when children have experience with clear but not overpowering parental emotions, they also may have more experience with empathic involvement with others' emotions (Denham & Grout, 1992, 1993; Denham et al., 1991; Denham, Renwick-DeBardi, & Hewes, 1994; Denham, Zoller et al., 1994; Gottman & Mettetal, 1986; Liew et al., 2003; Parke, Cassidy, Burks, Carson, & Boyum, 1992). Both middle- and low-income preschoolers' emotion regulation is facilitated by their mothers' appropriate expressiveness (Garner et al., 1994). Conversely, children whose mothers self-report more frequent anger and tension also are less prosocial, and less well liked than children of more positive mothers (Eisenberg et al., 2001; Eisenberg et al., 2003; Garner & Spears, 2000). Emotionally negative preschool classroom environments are also related to aggressive, disruptive peer behavior in second grade, especially for boys (Howes, 2000).

Hence, clear and mostly positive emotional environments are associated with positive outcomes in young children's emotional expressiveness, emotion knowledge, emotion regulation, and positive social behavior. Much less research has clearly targeted the expressive modeling of teachers, however, despite the existence of observational ratings that can be used to capture the emotional environment in early childhood classrooms (Arnett, 1989; Harms & Clifford, 1980). Denham, Grant, and Hamada (2002) have, however, found evidence that the socialization of emotion of both preschool teachers and mothers is important for the development of children's emotion regulation; maternal expressiveness and teachers' attitudes about teaching young children about emotion, the last component of emotion socialization, were the most important predictors of emotion regulation.

Conversely, parental expressiveness can make it more difficult for young children to address issues of emotion altogether. In particular, exposure to negative emotions expressed by adults in their lives can be problematic for young children. Although exposure to *well-modulated* negative emotion can be positively related to understanding of emotion, parents' frequent and intense negative emotions may disturb children, as well as discourage self-reflection, so that little is learned about emotions, other than how to express negativity (Denham, 1998). It is easy to imagine the confusion and pain of children relentlessly exposed to parents' negative emotions; in the aftermath of such confusion and pain, children whose mothers self-report more frequent anger and tension also are more angry themselves, less prosocial, and less well liked than children of more positive mothers. As well, the trajectory from age 2 aggressiveness to age 4 externalizing problems is clearest for toddlers who experience high levels of maternal negative expressiveness (Rubin et al., 2003); thus, it may be that exposure to higher levels of parental

negativity overarouses the young child who cannot yet regulate emotions well, and represents a hostile-aggressive template for children to follow in their reactions to people and events. At the same time, parents whose expressiveness is quite limited impart little information about emotions.

In sum, with regard to modeling, exposure to parents' and others' broad but not overly negative emotions helps children learn about emotions and come to express similar profiles. In particular, whether in families or classrooms, adult negative emotion is deleterious to young children's emotion knowledge, profiles of expressiveness, emotion regulation, and social competence.

Contingent Reactions to Children's Emotions

Adults' contingent reactions to children's behaviors and emotional displays are also linked to young children's emotional competence. Contingent reactions include behavioral and emotional encouragement or discouragement of specific behaviors and emotions (Tomkins, 1991). More specifically, adults may punish children's experiences and expressions of emotions, or show a dismissive attitude toward the world of emotions, by ignoring the child's emotions in a well-meant effort to "make it better" (Denham, Renwick-DeBardi, & Hewes, 1994; Denham, Zoller, & Couchoud, 1994). In emotion-evoking contexts, children who experience such adult reactions have more to be upset about—not only their emotion's elicitor but also adults' reactions (Eisenberg et al., 1998, 1999).

Positive reactions, such as tolerance or comfort, convey a very different message: that emotions are manageable, even useful (Gottman et al., 1997). Parents who are good "emotion coaches," at least in the United States, accept children's experiences of emotion and their expression of emotions that do not harm others; they empathize with and validate emotions. Emotional moments are seen as opportunities for intimacy (Denham & Kochanoff, 2003; Eisenberg & Fabes, 1994; Eisenberg, Fabes, & Murphy, 1996). As children develop their own effective emotion regulatory abilities, parents decrease the frequency, intensity, and nature of their reactions, in part because they are transferring responsibility for regulation from caregiver to child (Grolnick, Kurowski, McMenamy, Rivkin, & Bridges, 1998).

Little or no research has been conducted on how peers socialize each others' emotions. However, Sorber (2001) did examine how kindergarten and third graders indicated that they would react to specific peer emotions via a computer story game. Happy characters were given the most approval, with angry characters given the least approval; acceptance of the various emotions (i.e., happy, sad, angry, and scared) was not based on gender stereotypes.

Thus, there is much more research on the ways in which parents respond to young children's emotions, as compared to the reactions of teachers, siblings, and agemates. The clearest take-home message is that adults' and older siblings' optimal emotional and behavioral responses to children's emotions are associated with young children's own emotional expressiveness, emotion knowledge, and empathic reactions to peers' and others' emotions (Denham & Kochanoff, 2003; Fabes, Leonard,

Kupanoff, & Martin, 2001; Fabes, Poulin, Eisenberg, & Madden-Derdich, 2003; Strandberg-Sawyer et al., 2003; Zahn-Waxler, Radke-Yarrow, & King, 1979). For example, when mothers show benevolent patterns of reactions to children's negative emotions, children show less egoistic distress and more sympathetic concern to the distress of others. They have warm, empathic, nurturant guides to follow in responding to others' distress (Denham, 1993; Denham & Grout, 1993). However, much more research is needed in this area, especially to elucidate the central prediction of links between parental reactions to children's emotions and children's patterns of emotional expressiveness, and of socializers other than parents.

Teaching About Emotions

This last aspect of emotion socialization is the most direct. What parents and other adults say, or intentionally attempt to convey through other means, may impact their children's emotion knowledge. In its simplest form, coaching consists of verbally explaining an emotion and its relation to an observed event or expression. It also may include directing the child's attention to salient emotional cues, helping children understand and manage their own responses, and segmenting social interactions into manageable emotional components (Denham & Auerbach, 1995).

Teachers' and parents' tendencies to discuss emotions, if nested within a warm relationship, assist the child in acquiring emotional competence. The central aspect of this teaching is providing reasons for emotional events in the child's life, including correction of their mistaken behaviors. Such strategies coach children to perceive the social consequences of their digressions (e.g., "Johnny will be mad at you and not want to play with you again, if you keep taking away his toys") and to empathize or consider another's viewpoint (e.g., "That hurt Toby's feelings—look, he feels sad").

Adults who are aware of emotions, especially negative ones, and talk about them in a differentiated manner (e.g., clarifying, explaining, pointing out the child's responsibility for others' feelings when necessary, but not "preaching") assist their children in expressing, experiencing, identifying, and regulating their own emotions (Gottman, Katz, & Hooven, 1997). Again, dismissing adults may want to be helpful, but refrain from talking too much about children's emotions. Alternatively, poor coaches may actively punish children for showing or querying about emotions.

Accordingly, conversations about feelings are an important context for coaching children about emotions and how to express and regulate them (Bretherton et al., 1986; Brown & Dunn, 1992). Discussing emotions provides children with reflective distance from feeling states themselves, and space in which to interpret and evaluate their feelings and to reflect upon causes and consequences (Denham, Cook, & Zoller, 1992; Denham & Grout, 1992; Eisenberg et al., 1998; Gottman et al., 1997; Zahn-Waxler et al., 1979). Verbal give-and-take about emotional experience within the scaffolded context of chatting with a parent or teacher helps the young child to formulate a coherent body of knowledge about emotional expressions, situations, and causes

(Denham, Zoller et al., 1994; Dunn, Brown, & Beardsall, 1991; Dunn, Slomkowski et al., 1995). There is evidence that such associations between mothers' emotion language and preschoolers' emotion knowledge are often independent of the child's linguistic ability.

Children of such emotion-coaching parents and teachers gradually formulate a coherent body of knowledge about emotions (Denham, Renwick-DeBardi, & Hewas, 1994; Dunn, Brown, Slomkowski, Tesla, & Youngblade, 1991). When parents discuss and explain their own and others' emotions, their children are more capable of empathic involvement with peers (Denham & Grout, 1992; Denham, Renwick-DeBardi, & Hewes, 1994; Denham, Zoller, & Couchoud, 1994). The general trend of these findings also hold true for low-income, minority mothers and their children (Garner, Jones, Gaddy, & Rennie, 1997).

In one study of children in child care transitions (Dunn, 1994), preschoolers remembered both sadness and fear during these times, as well as the support given them by teachers and friends, to help them feel better. So it is clear that young children absorb not only the content, but also the form and quality, of nonparental adults' emotion coaching; how can this content, form, and quality be characterized? Two recent investigations (Ahn, 2003; Reimer, 1996) revealed that teachers of toddlers and preschoolers also socialize children's emotions differently based age, tailoring their reactions to children's emotions, and their teaching about emotions, to the developmental level of the children. In Ahn's study, toddler teachers used physical comfort and distraction in response to children's negative emotions more often than did preschool teachers, who relied more on verbal explanations. Preschool teachers helped children infer the causes of their negative emotions, and taught them constructive ways of expressing negative emotion more frequently than did toddler teachers. Teachers of older children were also less likely to match the positive or encourage positive emotion, and more likely to discourage such displays. Finally, this study demonstrated that teachers did not validate children's negative emotion very often—one of the major tenets of emotion coaching.

Reimer (1996) also found that teachers respond to about half of preschool children's emotions, most often in service of socializing emotion regulation; verbal references to children's emotions constituted about one half of their responses. These teacher verbalizations referred to causes and consequences of the child's emotion, which emotions were appropriate, and how to express emotions under various circumstances. Overall, these recent studies suggest that, to promote emotional competence, teacher/caregiver training should focus on validating children's emotions, while at the same time creating and sustaining adult-child emotion conversations.

Summary: How Adults Socialize Emotional Competence

In sum, there is a growing body of knowledge regarding the contributions of adults to young children's emotional and social competence. These elements will be useful in building adult roles in any successful social-emotional programming for young

children. Although cultural values and variations crucially require our attention because we must honor the unique perspectives of both adults and children, several principles seem to hold true across groups. A generally positive picture emerges of “emotion coaching.” Its elements will be useful not only in parenting but also in building any successful social-emotional programming for young children. In terms of promoting emotional and social competence, teacher/caregiver training should include a focus on ways to assist early childhood educators in becoming good emotion coaches.

APPLICATION TO THE EARLY CHILDHOOD CLASSROOM

The material covered in this chapter shows that *emotions matter* (Raver, 2002)—there is a clear association between emotional and social competence, and between emotional competence and school success. The development of emotional competence improves children’s abilities to cope with stressful situations, leads to improved brain development, and plays an integral role in learning through its role in focusing attention and persistence (Blair, 2002). At the same time, the development of social competence enables children to form positive relationships and refrain from problem behavior. These competencies are inextricably intertwined, forming an important foundation for academic success: Social competence and executive control are strongly influenced by a child’s emotional competence (especially emotion regulation); in turn, each plays a powerful role in adjustment and success in school (Hawkins, Smith, & Catalano, 2004).

For all children, especially those at greatest risk—because of poverty, community violence, family stress and discord, underemployment, maltreatment, pace of life, and family life changes, including those consonant with new welfare-to-work policies—the learning of emotional and social competence should not be left to chance (Peth-Pierce, 2000; Pianta & Nimetz, 1992). As detailed in this chapter, young children with deficits in emotional and social competence may learn to act in increasingly antisocial ways, and become less accepted by both peers and teachers. They participate less, and do worse in school, and are considered hard to teach, provided with less instruction and positive feedback, even in preschool. Even the cognitive competencies of those whose behavior is perceived as negative are less likely to be recognized than those of their more socially skilled agemates. As a final snub, peers don’t want to work with such children—gradually, the emotionally and socially *in*competent children come to avoid school altogether (Raver & Knitzer, 2002).

Preschool and kindergarten teachers, as well as day care providers, concur with these views, reporting that difficult behavior resulting from emotional and social competence deficits is their single greatest challenge (Arnold, McWilliams, & Arnold, 1998; Rimm-Kaufman, Pianta, & Cox, 2000). There has, in fact,

been a call for primary and secondary prevention programs targeted at preschoolers’ emotional and social competence needs (Knitzer, 1993), to ensure their smooth transition to kindergarten and early school success, so they not fall behind from the start. Attention to these areas during early childhood, as crucial for later well-being, mental health, and even learning and academic success, has blossomed in recent years (Huffman, Mehlinger, & Kerivan, 2000; Peth-Pierce, 2000; Raver & Knitzer, 2002). More and more evidence-based prevention and intervention programming is being tested and promoted in early childhood education (Denham & Burton, 1996, 2003; Domitrovich, Cortes, & Greenberg, 2002; Frey, Hirschstein, & Guzzo, 2000; Izard, 2002; Izard & Bear, 2001; Webster-Stratton & Taylor, 2001). A detailed review of such programming and extant early childhood assessment tools for emotional and social competence can be found in Denham and Burton (2003; see also Joseph & Strain, 2003).

However, although early childhood educators may recognize the need to bolster students’ social-emotional development, their concern has historically often been implicit, rather than made explicit through specific interventions (Denham, Lydick, Mitchell-Copeland, & Sawyer, 1996). At the same time, the public is demanding ever-greater accountability for students’ academic achievement, with increasing emphasis on test scores and related standards. Early childhood educators often experience so much pressure to meet various standards that they do not have the time or energy to devote to anything else. In addition, many educators are uncertain about how to address SEL issues most effectively (Zins, Weissberg, Wang, & Walberg, 2004). Thus, because of the crucial nature of early childhood social and emotional competence, and the considerable risk associated with their absence, early childhood educators need support so that they may give more widespread attention to promoting emotional and social competence in early childhood programming. Two specific sources of support already exist: (1) the early childhood special education interventions literature (e.g., McEvoy & Yoder, 1993, although much material in this area refers to solely social, rather than emotional, competence); and (2) the Head Start Center for Social-Emotional Foundations to Early Learning (<http://www.csefel.uiuc.edu>), which has a variety of information on teaching social-emotional skills.

There also are clearly identified means for early childhood educators to promote emotional competence (Hyson, 2002), which fit well with the material conveyed in this chapter:

- modeling genuine, appropriate emotional responses
- helping children to understand emotions of themselves and others
- supporting children’s regulation of emotions
- recognizing and honoring children’s expressive styles while promoting appropriate expressiveness
- giving children many opportunities to experience the joys and to overcome the frustrations of new learning opportunities³

³Hyson calls this task “uniting children’s learning with positive emotions” (p. 77)—such experiences help children become able to tackle hard work, persist at tasks, and seek out challenges.

Teachers seem to quickly recognize the emotional competence needs of children in their care, when they are brought to their attention. Although some early childhood educators retain their original notions that emotions are not the province of their work (Hyson & Lee, 1996), for many it is like turning on a faucet of understanding. The appropriate handling of emotions in the classroom becomes one of great concern to them when emotional competence is highlighted for them, commensurate with their concerns about children's behavior.

As noted by Hyson and Molinaro (2001), early childhood teachers and caregivers, in general, believe that children need physical affection and emotional closeness from teachers, that they learn about emotions from seeing how adults behave, and that children learn from adults how to express feelings acceptably. However, early childhood educators do vary in their beliefs about their role in the development young children's emotional competence—on whether it is their role to teach about emotions at all, the importance of modeling emotional expressiveness and talking about children's feelings, and whether such young children learn about controlling emotions. These differences in beliefs are often associated with teacher training, culture, teachers' own relationship styles. Thus, it seems clear, along with the other research needs already mentioned in this chapter, that more research is needed on the following:

- how teachers' beliefs about emotions change across time, and why
- how classroom practices vary with teachers' emotion-related beliefs
- what kind of preservice and inservice experiences help teachers to cultivate positive attitudes toward emotion coaching, as

well as provide them with the evidence-based tools to foster children's social and emotional development

As well, there are several higher-order needs that early childhood educators and applied developmental psychologists may help to meet (Hyson, 2002):

- to increase policy makers' awareness of research linking emotional competence and later social and academic success
- to advocate for resources for emotional competence and social competence-focused assessment and programming
- to see that early childhood standards, curricula, and assessment tools incorporate developmentally appropriate attention to emotional competence
- to evaluate extant emotional competence programming for (a) treatment fidelity, (b) treatment generalization, (c) treatment maintenance, (d) social validity of outcomes, (e) acceptability of interventions, (f) replication across investigators, (g) replication across clinical groups, (h) evidence across ethnic/racially diverse groups, and (i) evidence for replication across settings (Joseph & Strain, 2003). Moving toward evidence-based programming helps to ensure that our efforts in this area will be efficacious

Working together, we can make sure that Darrell continues from his early excellent footing in emotional and social competence, to successfully meet the challenges of learning to read, write, calculate, problem solve, and sustain more complex relationships with others. We can help Jimmy, Tomas, and even Jessica to find better ways to interact so that their well-regulated behaviors support their social, emotional, and academic pursuits throughout their lives.

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