

Chapter 2

Early Childhood Development Theories

Abstract Developmental theories are useful towards understanding how children learn and grow, and by what means their trajectories can be supported. Most theorists agree that both biology and experience are key factors that shape developmental outcomes. Risk and protective factors are said to contribute to development and often can be modified through intervention efforts. The prevention model emphasizes a foundation of supports and services aimed to foster healthy development.

Keywords Secure base behavior • Emotional regulation • Egocentric • Accommodation • Assimilation • Equilibrium • Zone of proximal development • Positive reinforcement • Negative reinforcement • Punishment • Parenting styles • Modeling • Ecological theory • Risk and protective factors • Prevention model

Theories of development provide a framework for thinking about human growth, development, and learning. If you have ever wondered about what motivates human thought and behavior or how personalities form, understanding these theories can provide useful insight into both the individual and societal influences on early development. The next section will briefly review the major developmental theories that help to explain how development unfolds, sources of vulnerability and protection that influence child development, and how the course of development may be altered by prevention and intervention efforts. Understanding factors which may support or compromise development and integrating this knowledge into one's work with children and their families are key to supporting healthy developmental outcomes and creating trusting partnerships with caregivers. This chapter will begin with attachment theory, and will provide an overview of the basic concepts proposed by the major developmental theories, which can be utilized by the early childhood professional in screening, assessing, and intervening with young children and their families.

Attachment Theory

Attachment theory is rooted in the joint work of John Bowlby and Mary Ainsworth, whose research first documented the importance of the relationship that developed between the mother and her child. Additionally, this research helped to document the detrimental impact upon children's development resulting from parental separation, deprivation, or bereavement (Ainsworth & Bowlby, 1991). Attachment is thought to be developed in phases, beginning before birth, when mothers first develop emotional feelings for their unborn babies. Attachment is believed to be a lifelong process, involving both intimacy and independence.

Newborn babies have been described as “wired for feelings and ready to learn” (National Research Council and Institute of Medicine [NRCIM], 2000, p. 4), and advances in research about early brain development support the importance of nurturing during the earliest years of life (NRCIM, 2000). In the first 2 months after birth, the baby and his or her caregivers must adjust and adapt to the changes brought on by the baby's first few weeks at home. During the early attachment phase, the baby learns to signal caregivers, who in return, respond to the baby's needs for food and comfort. *Emotional regulation* is a process whereby the infant learns to manage stressful situations through interactions with his or her caregivers, which eventually helps the infant to self-soothe. The quality of early caregiving is thought to either assist or impede the infant's ability to regulate inner emotional states; when the caregiver responds consistently to the baby's signals, the baby begins to develop a sense of competence and enjoys social interactions.

By 2–7 months of life, the baby's feeding and sleeping cycles are becoming more regulated and predictable. Babies are more interactive, easier to care for, and will smile at their caregivers. By 6 months of age, babies show differentiated emotions of joy, surprise, sadness, disgust, and anger, respond to the emotional expressions of others, and enjoy turn-taking vocalizing. Around 7–9 months of age, the preference for familiar caregivers and protests around separation from them emerges and is referred to as *separation anxiety*. When babies become “attached,” they become increasingly wary and anxious around strangers, and it becomes even more important for the caregiver to offer comfort, nurturance, and protection. Babies become attached to caregivers with whom they have had significant amounts of interaction. Caregivers are described as being hierarchically arranged in terms of preference, so that the baby has a most preferred caregiver, a next most preferred caregiver, etc.; however, there is thought to be a limit to the attachment capacity. Serious attachment disturbances become evident in settings where babies have to depend upon large numbers of caregivers, such as in institutions, or when there are frequent disruptions of caregivers, such as in foster care placements (Smyke, Dumitrescu, & Zeanah, 2002).

The concept of *secure base behavior*, which emerges during toddlerhood (12–20 months), describes the willingness of the child to venture out from the caregiver to safely explore the world (Ainsworth & Bowlby, 1991). Secure base behavior develops along with the toddler's ability to walk and explore and the toddler's new sense

of will. A toddler's ability to say "no" demonstrates that he or she has developed a solid sense of self as separate from the caregiver. The caregiver must learn to guide the child's behavior by setting limits firmly and lovingly to keep the toddler safe and secure. At the same time, the caregiver must reinforce and build the child's self-confidence through positive reinforcement.

Between 20 and 24 months, the toddler's attachment continues to evolve to others outside of the immediate family through exposure to new experiences in community settings such as daycares. Communication and play skills become more developed and complex. Securely attached children are described as more autonomous, socially confident, flexible in problem solving, and affectionate. By age 3, such children are described as empathetic, have better social skills, and have become good communicators. In summary, attachment theory posits that early human relationships and experiences lay the foundation for later development and learning.

Attachment Theory Vignette

Two-year-old Maya has recently begun squirming and saying "no" when mother tries to secure her in her car seat. Maya has begun to develop a sense of self and autonomy, separate from her caregivers. Her caregivers must consistently set limits and follow through with Maya, to keep her safe and secure while riding in the car. They can increase her willingness to comply by providing specific praise along with a special toy to hold whenever she gets into her car seat without resistance.

Cognitive Theory

Certainly, anyone trained to work with young children has come across the work of Jean Piaget. Piaget is best known for his theory of cognitive development in children, which proposed that children's cognitive skills progress through a series of stages in which new information from experiences is taken in and understood. Stages in early childhood development include the sensori-motor (ages birth to 24 months) and preoperational (ages 2–6 years) periods. In the sensori-motor period, children learn to coordinate and repeat actions which are pleasurable. They also begin to understand that symbols (words) can represent objects or events and to comprehend the concept of *object permanence*, meaning that objects continue to exist, even when not visible. In the preoperational period, language becomes the hallmark of development. Children begin to engage in pretend play and will take on roles such as Mommy or Daddy. However, they are still *egocentric*, or unable to take the view of another person.

Piaget believed that from birth, children are driven to explore and master their own environment, take pleasure in mastery, and develop self-confidence through

doing. Children learn by taking in new information (*assimilation*), which adds to and changes (*accommodation*) their prior understanding and knowledge (*schemas*). For example, if a child's experience has been with small dogs, she might believe that all dogs are furry, have four legs, bark, and are small. When she encounters a big dog, she must take in the new information and modify her existing schema so that it makes sense. Piaget explained that children must strike a balance between assimilation and accommodation (*equilibrium*), and in doing so, are able to move from one stage of thought to the next stage. Thus, children in the sensorimotor and preoperational stages of development must have experiences and opportunities to learn new information and concepts. Caregivers can facilitate children's learning by providing them ample opportunities to explore and by monitoring them to keep them safe.

The insights offered by psychologist Lev Vygotsky are also important to consider in working with young children. Vygotsky coined the term *zone of proximal development*, which refers to the ideal level of adult/older child support or assistance that a child needs to learn a new skill. *Scaffolding* refers to the adjustment that one must make with supports, in order to enhance the child's independence and confidence in learning new skills. Like Piaget, Vygotsky emphasized the importance of play in learning new language and cognitive skills, and along with attachment theorists believed that play enhanced social development. Play becomes the vehicle through which children learn and internalize social rules, which develops self-regulation, and relationships with others (Vygotsky, 1978).

Applied Behavior Analysis

Applied behavior analysis (ABA) has been referred to as "the science devoted to the understanding and improvement of human behavior" (Cooper, Heron, & Heward, 2007, p. 3). Behavior is understood by observing the relationship of behavior to the environment, which incorporates rules governing learning and maintenance of behaviors. ABA always involves careful measurement of behavior and its consequences, and utilizes behavioral technology to strengthen desired behaviors and to weaken undesirable behaviors. Other terms for ABA include learning theory (most often used in educational settings), behaviorism (associated mostly with Skinner and early pioneers in this field), and behavior modification. Positive Behavior Support (PBS) emerged from ABA and emphasizes the prevention of inappropriate behavior, understanding the function of behavior, redirection of problem behaviors, and teaching replacement skills. ABA has been used successfully with individuals of all ages and abilities, and is implemented across settings such as home, school, or other community settings.

Behavior, by definition, must be observable and measurable, and includes both reflexive and operant behaviors. Reflexive behaviors are those which automatically occur. Reflexive behaviors can also become linked to a neutral stimulus. For example, a dog will automatically salivate to food; however, if one rings a bell right before feeding a dog, the dog will eventually salivate to the sound of the bell, even

without the food being presented. In fact, the dog may even salivate when a doorbell rings, a timer goes off, or to anything similar to the bell, and this is called *generalization*. However, if one continues to ring the bell over a period of time and does not present food, the dog will no longer salivate, which is called *extinction*. This technology is used to help people overcome fears or anxiety responses, by gradually exposing them to anxiety-evoking events, while teaching them to relax.

Operant behaviors refer to behaviors as they are maintained by consequences, or the outcomes of the behavior. If the behavior is increased, the consequence is referred to as reinforcement. Positive reinforcement includes consequences such as food, attention, or activities that increase the probability that the behavior will reoccur. An example of positive reinforcement is praise for desired behavior. Negative reinforcement refers to consequences which are avoided through the behavior. For example, a driver may slow down when he notices a police car ahead of him. This behavior results in avoiding a ticket, which increases the likelihood of slowing down in the presence of a police car in the future. Punishment is a consequence that may temporarily stop a behavior from occurring; for example, if the driver is ticketed for speeding, he may slow down for a while. Extinction refers to a process of withholding reinforcement that has maintained behavior, which will lead to a decline of the behavior. Ignoring unwanted behavior will gradually extinguish that behavior if practiced consistently.

Shaping refers to a process of teaching new skills through the process of reinforcement. By breaking down the desired behavior into simple skills, and reinforcing each skill, the desired goal will eventually be reached. If there is also undesired behavior, one may consider combining reinforcement and extinction; for example, ignoring undesirable behavior, while reinforcing desired behavior, will eventually result in increases of desired behavior.

Schools have utilized principles of ABA not only to address challenging behaviors once they have occurred but also to prevent these behaviors from occurring in the first place. School-wide PBS combines ABA technology within a prevention framework, such that all students benefit from school-wide supports such as social skills training, while those students with more intensive needs receive the attention that they require to be successful (Sugai & Horner, 2005). This model has been successfully implemented in early childhood through high school settings and emphasizes the following:

- Proactive instructional approaches to teaching and improving social behaviors
- Conceptually sound and empirically validated practices
- Systems change to support effective practices
- Data-based decision making

For young children, and children with disabilities, the following PBS strategies are endorsed (Fox, Carta, Strain, Dunlap, & Hemmeter, 2010):

- Functional Behavioral Assessment and assessment-based interventions
- Functional communication training
- Self-management/monitoring
- Choice making

Social learning theory emerged from learning theory and helps to explain how new behavior may be learned simply by watching others (Bandura, 1977). Social learning theory is also known as modeling or vicarious learning. Through the controversial Bobo Doll experiments, Bandura proved that young children exposed to televised aggression became more aggressive, even though their behaviors had not been reinforced through consequences. Social learning is thought to be influenced by internal processes involving attention, memory, and motivation, which might not be as readily observable as behavior and its consequences. Young children are especially attuned to learning through modeling or watching others, especially if they identify with the model, or see that the model is reinforced for its actions. Thus, aggressive and violent actions shown by cartoon characters or other media and seen by children may actually influence children to behave in similar ways, especially if the character is reinforced for its actions.

Social Learning Vignette

Four-year-old Justin watched a wrestling match with his parents and older siblings. His family cheered, clapped, and high-fived whenever their favorite wrestler punched or kicked his opponent. A few days later, Justin's teacher reported to his parents that he was punching and kicking his friends at school. They could not understand why Justin began displaying these aggressive behaviors, because they did not allow punching or kicking at home.

Social learning theory helps us to understand how Justin learned these aggressive behaviors. He witnessed aggressive behavior at the wrestling match, identified with the wrestler, and saw his family and others reinforce the wrestler for his aggressive actions by clapping and cheering.

Parenting Styles

Parenting styles is a concept first described by Diana Baumrind (1966) and later expanded by Maccoby and Martin (1983). It refers to the degree to which parents respond to their child's needs, disciplinary strategies they use, parental expectations for maturity and control, and the effects that this has on their child's development. There are four styles of parenting:

1. *Authoritarian*, or "too hard," parenting style is described as highly demanding but not responsive parenting. Children are expected to follow strict rules, and not following rules will result in punishment. These parents value obedience, tradition, and order, and expect children to obey without questioning. This type of parenting style may lead to children who are obedient and proficient, but less happy and self-confident. In extreme cases, abusive parents may fall in this category.

2. *Permissive*, or “too soft,” parenting style is depicted as low demands, but highly responsive. Parents, who are permissive, place few demands on the child, allow the child to regulate his or her own behavior, and remain nurturing and communicative. Parents take on the role more of a friend than a parent. This may lead to children who seem spoiled or self-centered, and they do not perform as well in school.
3. *Authoritative*, or “just right,” parenting style is portrayed as moderately demanding and responsive. Authoritative parents set and reinforce limits, but are much more responsive and willing to listen to questions. When children fail to meet expectations, they are more likely to be forgiving instead of punishing, and see discipline as teaching. Children of authoritative parents are thought to be the most happy, capable, and successful.
4. *Uninvolved* parenting style is characterized by few demands, low responsiveness, and little communication. These parents seem to be detached from their child’s life and, in extreme cases, may neglect or reject their child. Their children may lack self-control, have lower self-esteem, and are less competent than peers.

Various researchers have supported the authoritative parenting style as being the most beneficial towards raising happy, confident, and capable children (Baumrind, 1991; Guzell & Vernon-Feagans, 2004; Neary & Eyberg, 2002). As such, the authoritative parenting style is the most often included in the evidence-based parenting programs.

Ecological Systems Theory

Ecological systems theory was proposed by Urie Bronfenbrenner (1979) to help explain how children develop within the context of their world. He described five systems that influence development, Microsystem, Mesosystem, Exosystem, Macrosystem, and Chronosystem, and considered that the person’s biology also contributed to this system. Thus, both environmental and biological factors are thought to shape development and child outcomes. Bronfenbrenner is one of the founders of the Head Start Program, a federal program intended to improve cognitive and developmental outcomes for children and their families from low income backgrounds through education, health, nutrition, and parent training efforts.

The concept of risk and protective factors emerges out of ecological systems theory. Those features which are thought to contribute to behavioral disorders and poor developmental outcomes are defined as *risk factors*. Risk factors, which are biological in nature, reside within the child and include prenatal exposure to substances, premature birth, temperament, developmental delays, chronic medical conditions, and insecure attachments. Environmental risk factors, or those which are external to the child, include factors such as inconsistent caregiving, poverty, abuse, and neglect.

Protective factors, on the other hand, are thought to improve self-regulation and behavior and, again, may be described as within-child factors and external factors. Within-child protective factors include health and wellness, high cognitive skills,

and strong adaptive skills. External protective factors include warm and predictable caregiving relationships, safe experiences and environments, and firm and consistent discipline, as well as community supports, health services, schools, laws, etc.

Prevention Model

Concerns about young children's health and well-being have caused researchers and practitioners to think in terms of prevention. The public health prevention model emphasizes multiple layers of supports and services aimed to decrease risk factors and reduce disorders, in order to promote better outcomes (Kazak, 2006). In the case of young children, the principle of nurturing environments is proposed to prevent multiple problems and improve success (Mercy & Saul, 2009). *Primary prevention* refers to efforts which target all children and families. An example of primary prevention would be the Back-to-Sleep campaign, which is intended to reduce infant deaths due to Sudden Infant Death Syndrome or SIDS. *Secondary prevention/intervention* is more intensive and is targeted towards at-risk populations, with Head Start being a prime example as it supports young children at risk for school failure due to poverty. *Tertiary prevention/intervention* is considered to be the most intensive support within the prevention model, and intended for children and their families who are already experiencing significant difficulties. Federal special education and early intervention are examples of tertiary prevention/intervention, as only the most at-risk are eligible for those services, and the intention is to prevent further damage and improve outcomes.

The prevention framework allows for greater efficiency in how service delivery is organized, delivered, and funded, with the most intensive services reserved for the most at-risk. This framework is called by different names depending upon the system of care in which it operates; among them are *Recognition and Response* (Coleman, Buysse, & Neitzel, 2006), *Teaching Pyramid* (Fox et al., 2010), *Stepped Care* (Bower & Gilbody, 2005), *Nurturing Environments* (Komro, Flay, & Biglan, 2011), and *Response to Intervention* (Van Der Heyden & Snyder, 2006). Each of these models describes supports and services in a three- or four-tiered model which describe the most effective and efficient methods of preventing and treating problems. In the remaining chapters, the prevention model will provide the framework in discussions about how to integrate research, experience, and best practice efforts towards fostering positive outcomes and reducing behavior problems in the young children.

Conclusions

This chapter highlights theories of development that help explain how children learn and grow, by what means their behavior may be modified and improved, and why it is argued that their outcomes are shaped by both biology and experiences.

Understanding factors which may support or compromise development and integrating this knowledge into one's work with children and their families are crucial towards cultivating more supportive environments. The early childhood professional can help parents and other caregivers by teaching them how to spend more enjoyable time with their child, reinforce positive skills, monitor behavior and set limits, and reduce the use of harsh discipline methods. These are the essential parenting skills that help children develop prosocial behavior, self-regulation, and other skills they will need to be successful in school and other settings.

Assess Your Knowledge

Use this vignette to answer questions 1–7.

Maria (age 3) asks Juan (age 24 months) to share a toy, but he loudly protests and throws himself on the floor. The early intervention practitioner intervenes, making this a teaching moment for both children and their parent. For each question (1–7), circle the letter that best describes the theory underlying this approach.

1. The practitioner ignores Juan and praise Maria for using her words.
 - a. Attachment theory
 - b. Cognitive theory
 - c. Behavior (reinforcement) theory
 - d. Authoritarian Parenting
2. The practitioner offers Maria another toy and says “I’ll share with you. Sharing is fun.”
 - a. Accommodation
 - b. Modeling
 - c. Authoritative Parenting
 - d. Emotional regulation
3. The practitioner says to Juan “Oh...I can see that you don’t want to share right now. It’s your special toy.”
 - a. Cognitive theory
 - b. Modeling and imitation
 - c. Permissive parenting
 - d. Prevention model
4. The practitioner pays no attention to both children and looks at Facebook with parent.
 - a. Negative reinforcement
 - b. Authoritative parenting
 - c. Uninvolved parenting
 - d. Permissive parenting

5. The practitioner says to Juan “When you have finished with the toy, please give it to Maria for a little while.”
 - a. Cognitive theory
 - b. Authoritative parenting
 - c. Authoritarian parenting
 - d. Permissive parenting
6. The practitioner reprimands and sends both children to corner for not sharing.
 - a. Behavior (reinforcement) theory
 - b. Authoritative parenting
 - c. Authoritarian parenting
 - d. Uninvolved parenting
7. Perhaps Juan is not mature enough to understand sharing. The practitioner decides to practice an activity, such as tossing a ball back and forth, which requires turn taking and sharing.
 - a. Cognitive theory
 - b. Authoritarian parenting
 - c. Permissive parenting
 - d. Ecological model
8. Little Albert is playing with a stuffed bunny when someone pops a gun behind him. Now he cries whenever he sees any kind of a stuffed animal or pet. This is an example of:
 - a. Immaturity
 - b. Attention seeking behavior
 - c. Generalization
 - d. Egocentricity
9. You decide to run a 5 km race, but you cannot walk more than a mile without feeling exhausted. You set up a schedule for yourself, beginning with a mile walk and gradually increasing your walking distance until you reach your goal. This is an example of:
 - a. Prevention
 - b. Shaping
 - c. Equilibrium
 - d. Modeling
10. Aysha was born at 25 weeks gestation. Her mother is 17 years old and has dropped out of school. We might think of these as:
 - a. Uninvolved parenting
 - b. Negative reinforcement
 - c. Risk factors
 - d. Generalization

Assess Your Knowledge Answers

1) c 2) b 3) c 4) c 5) d 6) c 7) a 8) c 9) b 10) c



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