

Child Development and Early Learning

Initial Practice-Based Professional Preparation
Standards Early Interventionists/Early Childhood
Special Educators

1.1



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Standard 1

Candidates understand the impact of different theories and philosophies of early learning and development on assessment, curriculum, instruction, and intervention decisions. Candidates apply knowledge of normative developmental sequences and variations, individual differences within and across the range of abilities, including developmental delays and disabilities, and other direct and indirect contextual features that support or constrain children's development and learning. These contextual factors as well as social, cultural, and linguistic diversity are considered when facilitating meaningful learning experiences and individualizing intervention and instruction across contexts.



Component 1.1

- 1.1 Candidates demonstrate an understanding of the impact that different theories and philosophies of early learning and development have on assessment, curriculum, intervention, and instruction decisions



Objectives

- Describe key theorists and their theories on early development and learning that influence EI/ECSE
- Describe the influence of theories on early development and learning on assessment, curriculum, intervention, and instructional decisions



Theory

- Defined as an orderly, integrated set of statements that describes, explains, and predicts behavior
- Influenced by cultural values and belief systems
- Continued existence depends on scientific verification:
 - Set of research procedures agreed by the scientific community
 - Endure or replicated over time



Nature vs. Nurture

Child Development Theories

- Nature
 - All genes and hereditary factors influence who we are and are not likely to vary much across a lifetime
 - Physical traits, personality characteristics, intellectual or creative traits
 - Heredity is most important



Nature vs. Nurture continued

- Nurture
 - Environmental variables impact who we are
 - How we are raised
 - Social relationships
 - Surrounding culture



Behavioral and Developmental Theory

- **Behavioral theory:** the core of special education research and practice
- **Developmental theory:** informs application of practices to young children and early learners
 - Piagetian Theory
 - Vygotskian Theory
 - Attachment Theory



Systems Theories

- **Ecological and Transactional Models**
 - Sameroff: Transactional Model
 - Bronfenbrenner/Ecological Systems of Theory
 - Neuroscience of Early Childhood



Foundations of Behavioral Theory

- Directly observable events are only appropriate targets of the study of child learning and behavior
- Measurable stimuli and behavioral responses
- Originated with Pavlovian experiments with dogs to demonstrate classical conditioning



B.F. Skinner

- Developed Operant Conditioning – reinforcers and punishers can be developed to individualize and modify response behaviors
- Led to broader use of behavior modification interventions, primarily tested in clinical settings on older children and adults with cognitive impairments

Applied Behavior Analysis (ABA): Key Concepts

- **Three-part contingency** (antecedent-response-consequence)
- Systematic use of **behavioral strategies** - modeling, prompting, shaping, chaining, and differential reinforcement to support positive outcomes
- Fidelity use of **functional behavior assessments** and development of appropriate **behavior intervention plans**



ABA – Key Concepts

- **Data collection** guides assessment, planning, intervention, and evaluation.
- Supports appropriate behavior by teaching new skills
- Modifies the environment to prevent challenging behavior
- Puts prevention strategies in place before new behaviors occur

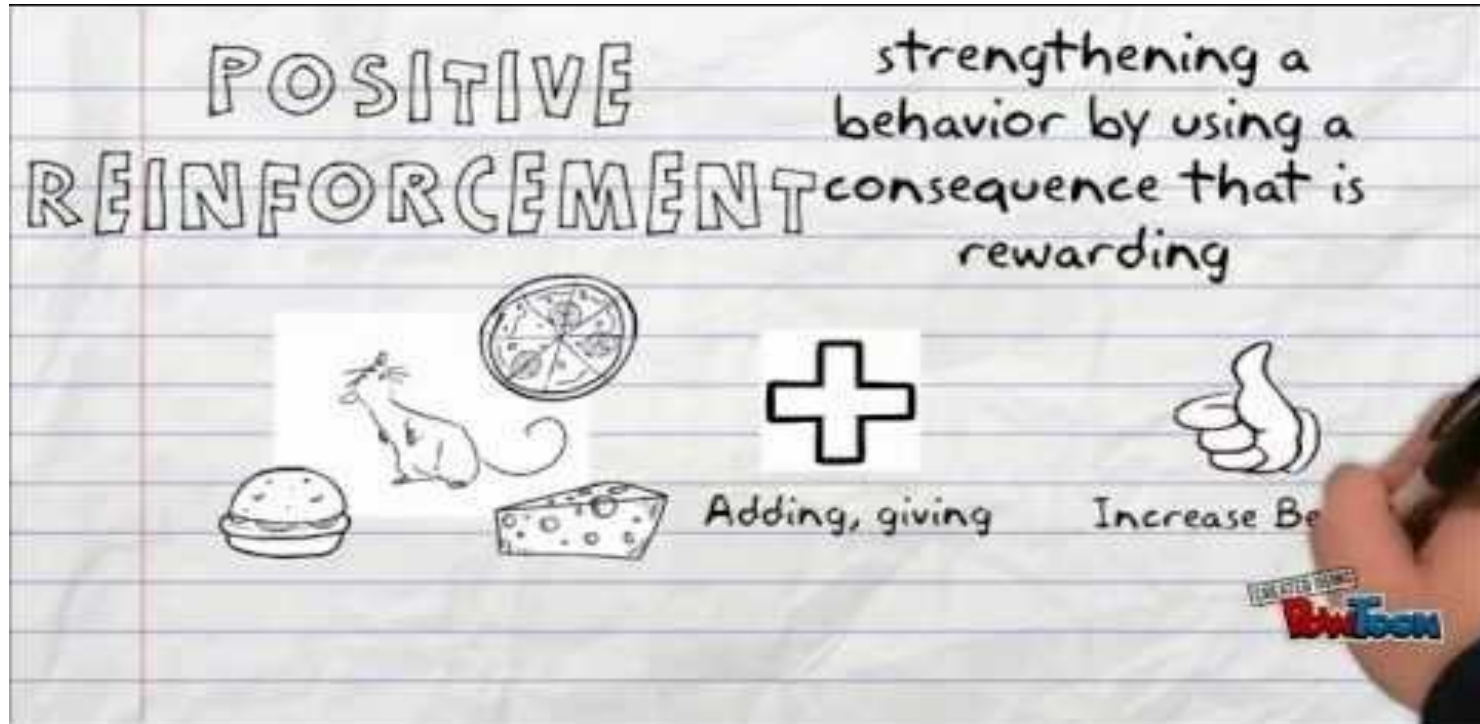


Activity

- After watching the video on the next slide, discuss the assessments and interventions used in EI/ECSE that are based in behavioral theory



Video: A Look at Behaviorism



<https://youtu.be/eLaa8cgljKk>



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The Developmental Perspective

- Behavioral practices for individuals with disabilities originally developed for older children and adults in highly controlled circumstances
- Increased focus on early learning and intervention for young children in the context of caregiving required a blending of theories
- Modern EI/ECSE practice grounded in multiple theories



3 Developmentally-Based Theories

- Piaget: Cognitive developmental theory
- Vygotsky: Sociocultural theory
- Attachment Theory



Jean Piaget: Cognitive-Behavioral Framework

- One of the most influential theorists of modern child developmental theory
- Did not believe that child learning required the use of reinforcers such as praise or rewards from adults
- First to closely study the way children actively engaged with the physical world to learn



Schemas: Frameworks for Understanding

- “Building blocks” of knowledge
- Helps children organize and make gradually more complex meaning of the world
- Children gradually transition from simpler ways of understanding to more complicated ones, using a string of organizing experiences over time



Piaget:

3 Basic Concepts

- **Schema:** a mental structure we use to organize our perceptions and memories
- **Assimilation:** use of existing schemas to build on our stores of knowledge and skills
- **Accommodation:** “building” or creating new schemas (involves deeper change)

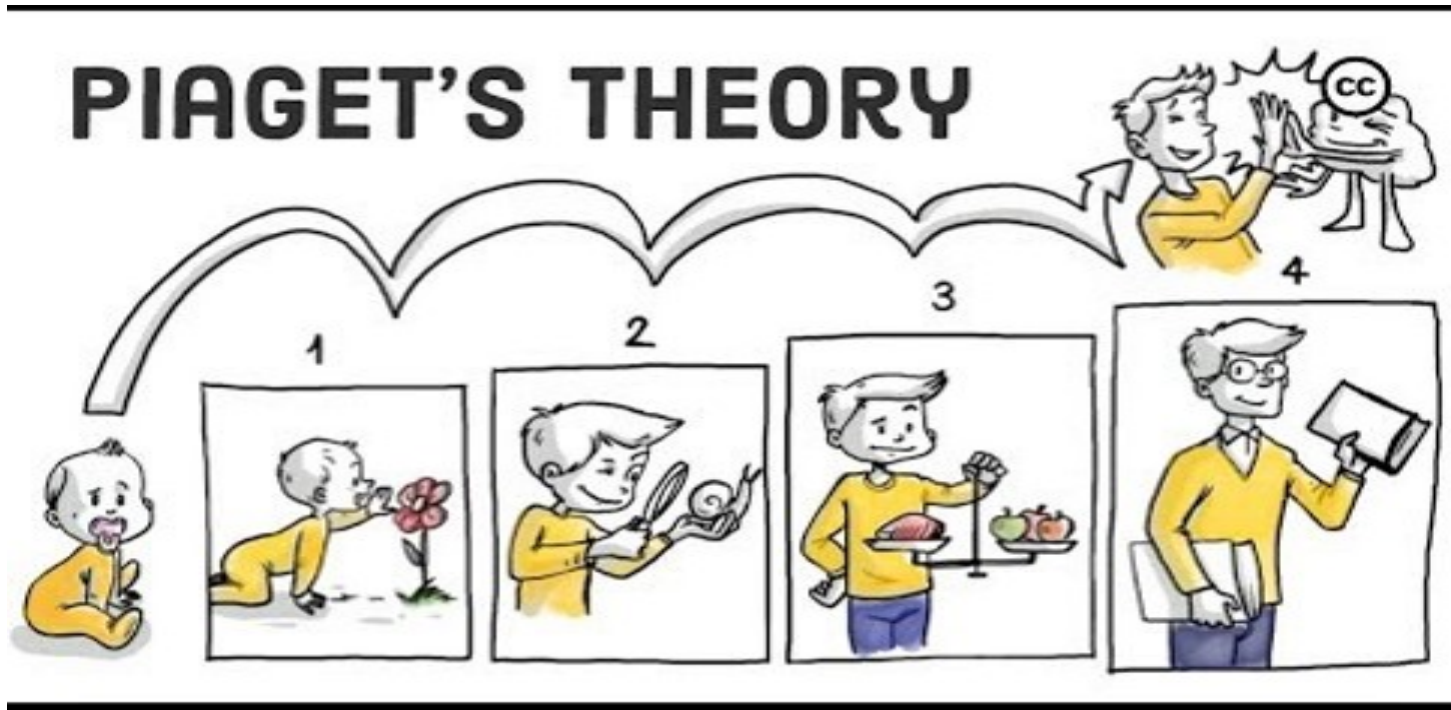


Piaget: 4 Stages of Development

STAGE	PERIOD OF DEVELOPMENT	DESCRIPTION
Sensorimotor	Birth – 2 years	Explores with all senses, hands, mouth. Works out making things happen (cause and effect), finding hidden objects, filling and emptying
Preoperational	2-7 years	Begins to use symbols, language, pretending, story-telling
Concrete Operational	7-11 years	Logic and reasoning become more organized: interested in classifying objects into hierarchies
Formal Operational	11 +	Abstract and systematic thinking requiring higher-level cognitive processes



A Look At Piaget



<https://youtu.be/lhcgYgx7aAA>



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Activity

- As a group, discuss assessments you have used that incorporate Piaget's stages as a means of describing a child's cognitive development.
- How can knowledge about each of these stages provide useful information for IFSP/IEP planning?



Sociocultural Theory: Vygotsky

- Believed that knowledge takes place in the context of social interactions
- Through interactions with others, children acquire the capacities and skills they need in the context of their own culture



“More Knowledgeable Other”

- Adults, older siblings, cousins, and peers serve as **“more knowledgeable others”**
- They provide a rich variety of expressions, gestures, sounds and language to communicate about how to survive and thrive



“Proximal Zone of Development”

- He believed that adults naturally **scaffold** child learning through interactions that are appropriate to the child’s readiness



Vygotsky: Sequential stages

1. Face to face interaction
2. Joint attention
3. Acquire the use of symbols (gestures, sounds, language)
4. After language acquisition, increased interactions with adults/peers develop higher order capacities



Video: A look at Vygotsky



**VYGOTSKY'S
THEORY**

<https://youtu.be/8I2hrSRbmHE>



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Activity

- As a group, discuss how the concept of “proximal zone of development” can be used to inform IFSP/IEP planning



Attachment Theory



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Harlow's Experiments

- Series of studies in the mid-1900's
- Young primates sought connection and comfort over food sources
- Described the concept of early bonding in other animal species



Attachment and Regulation From an Adult Are Primary Needs

- Babies are hard-wired to seek proximity to their mothers at birth
- Through touch, rocking, singing, and caregiving, adults in virtually all cultures respond to the distress of infants and toddlers to restore them to a regulated state



Mary Ainsworth: Patterns of Attachment

- Used the “Strange Situation” Paradigm
- Recorded and validated attachment styles:
 - Secure
 - Insecure: Avoidant
 - Insecure: Resistant/Ambivalent
 - Insecure: Disorganized/Disoriented



Video: A Look at Attachment Theory



<https://youtu.be/WjOowWxOXCg>



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Transactional/Ecological Theories

Merging behavioral, developmental and systems theory into a unified theory of child development

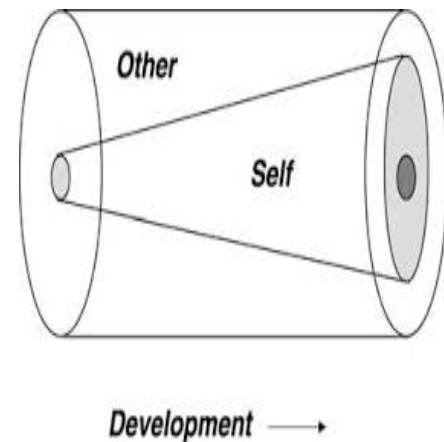


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Transactional Model: Sameroff

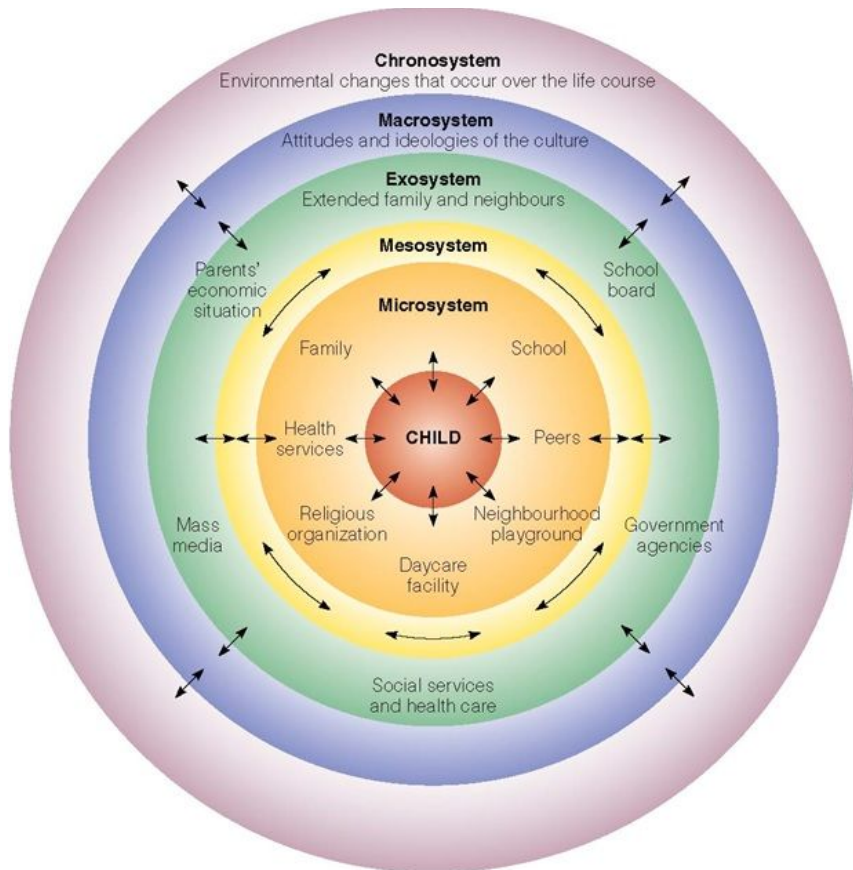
- Nature and nurture both influence development through a constant interactive process
- Inborn and environmental forces shape development in a bi-directional and transactional manner



Bronfenbrenner: Ecological Systems Theory

- Importance of emotionally connected caregiving relationships – the need for safety and stability within families support emerging development
- *A dynamic system* involving both the child's biological makeup and the collective forces of environment to shape development





Bioecological Model

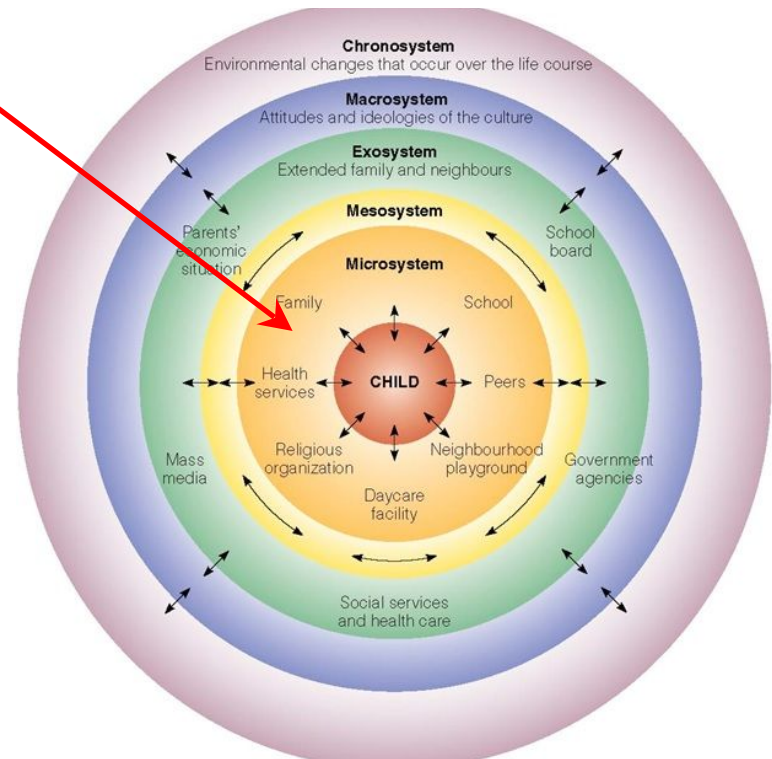


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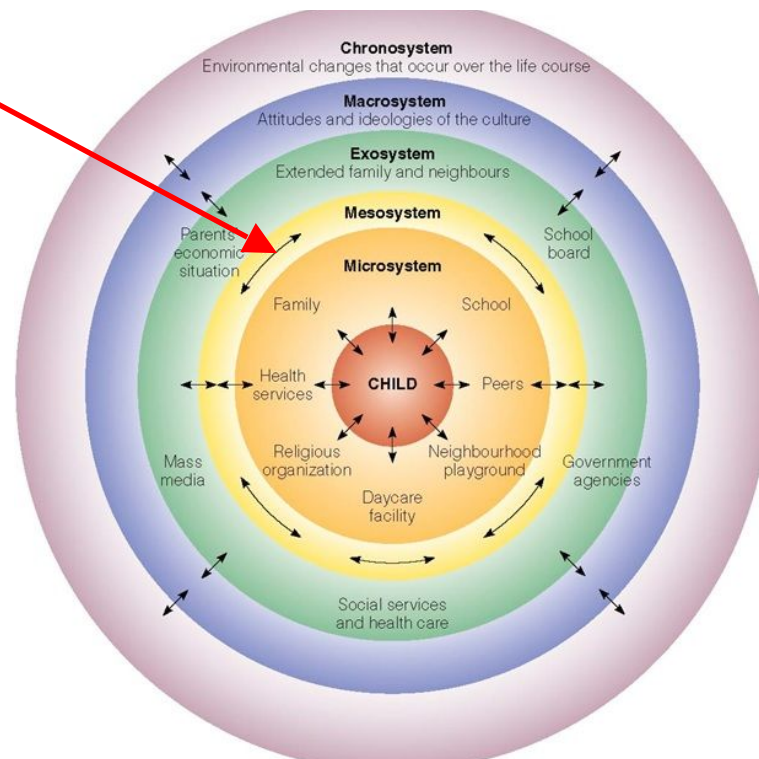
The Microsystem

- Experiences and relationships at the level of the family environment, including home, neighborhood play areas, and childcare settings.
- Bidirectional



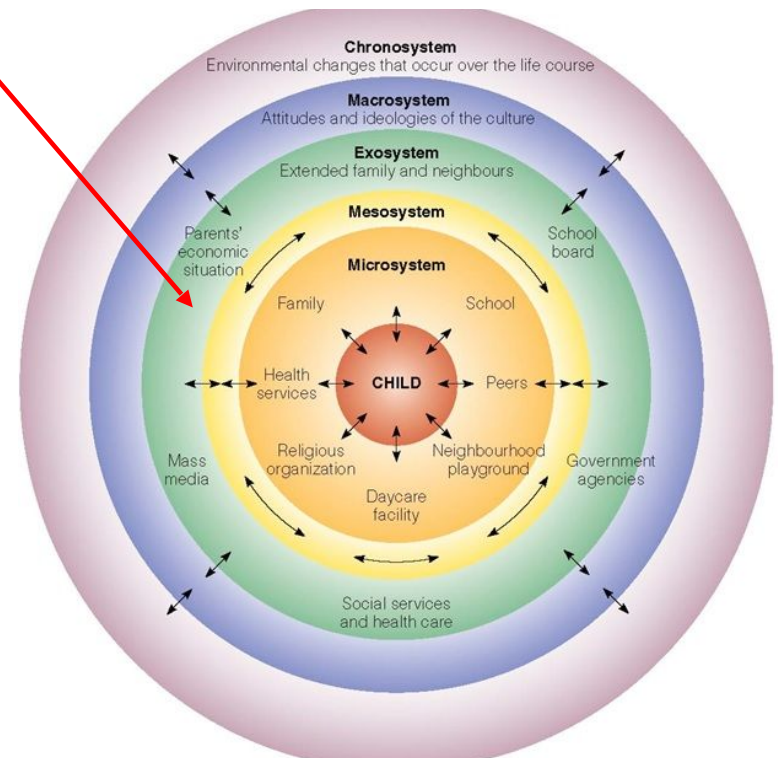
The Mesosystem

- Contains connections between elements of the microsystems – home, neighborhood, childcare and recognizes the impact of each of these upon the other



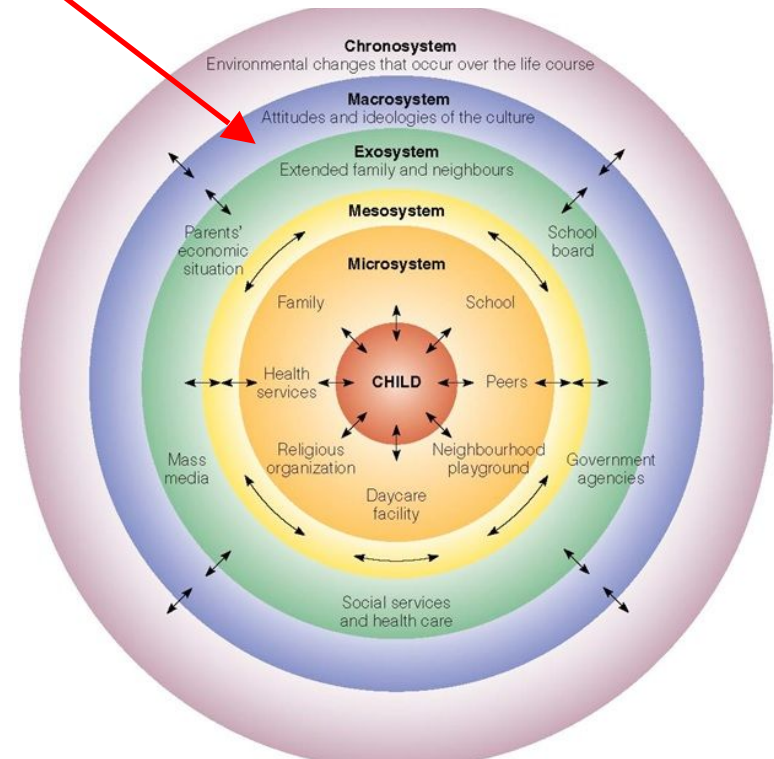
The Exosystem

- Social settings outside of the child's family structures but impact experiences
- Formal support systems: religious, health care access, work-related benefits
- Informal support systems: friends and extended family



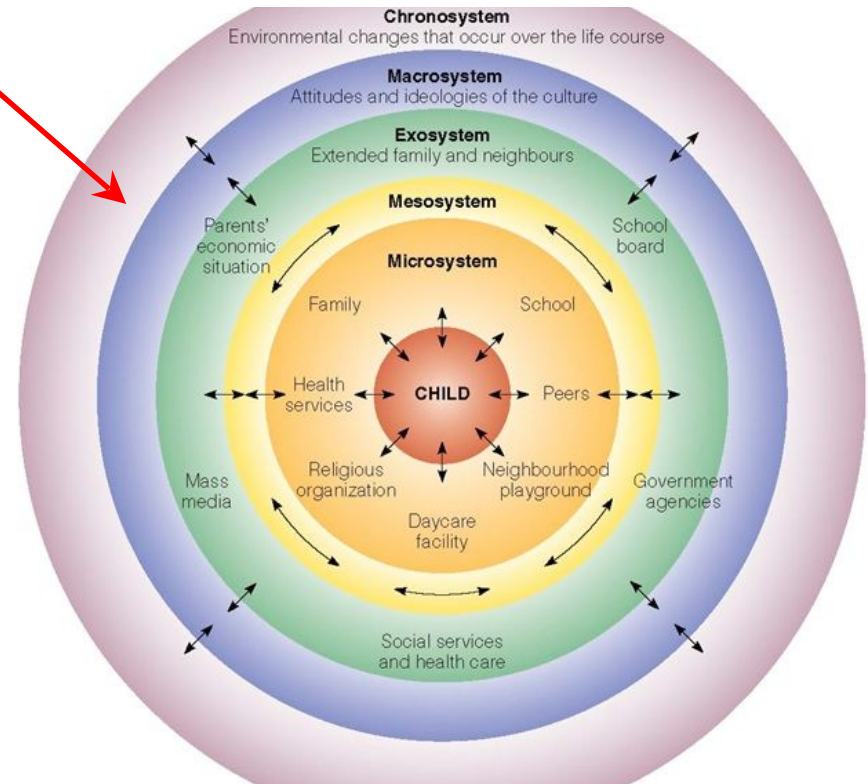
The Macrosystem

- Larger constellation of culture, world views, laws, customs and collective resources
- How leaders and systems prioritize the needs of children determine the experiences of children within the family



The Chronosystem

Environmental influences that shape the experience of an individual across the life span



Neuroscience of Early Childhood

Grounded in Sameroff's Transactional Model and Ecological Systems theory, the **neuroscience of early childhood** model is situated in the context of multiple theoretical models



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Key Concepts: Neural Exuberance

- Brains begin to develop from birth and develop at an astronomical pace in the first months of life
- Over 1 million new connections per second
- First years of life are when the foundations of brain architecture are formed



Key Concepts: Serve and Return

- Early experiences support or constrain brain architecture
- Lay the foundation for all subsequent development
- Early and consistent [serve and return](#) interactions optimize development for children of all abilities



Video: Serve & Return Interaction Shapes Brain Circuitry



https://www.youtube.com/watch?v=m_5u8-QSh6A



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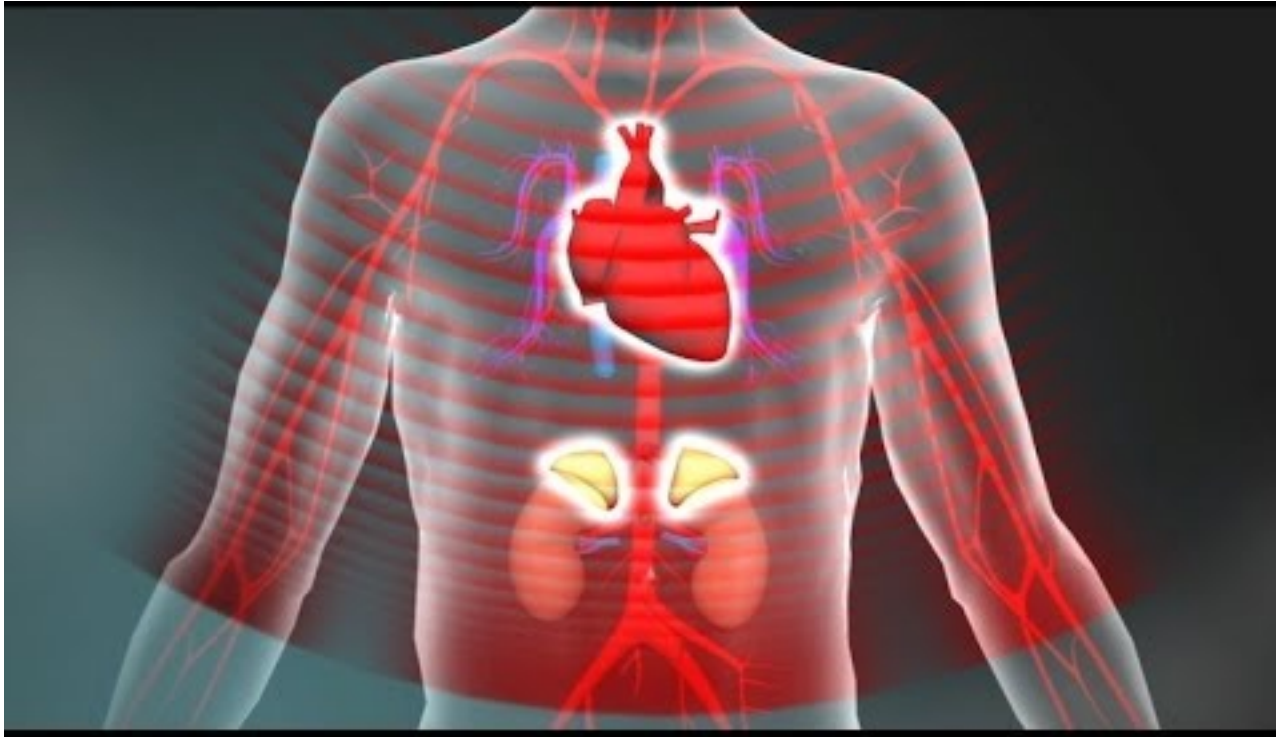
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Key Concepts: Toxic Stress

- Early and continuing adversity and/or trauma can [derail developing brain architecture](#)



Video: Toxic Stress Derails Healthy Development



<https://www.youtube.com/watch?v=rVwFkcOZHJw>



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Key Concepts: Resilience

- Why do some children do well in the face of adversity, and others do not?
- What determines how resilient a child is when faced with difficult circumstances?



Video

In Brief: What is Resilience?



<https://youtu.be/cqO7YoMscU>



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Group Activity I: Antonia and her family

<https://ecpcta.org/wp-content/uploads/sites/2810/2021/01/Case-Study-Antonia-Family.Centered.Practice-1.pdf>



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Framing Individual Theories

- Using your assigned theoretical perspective, what would be the focus of your concerns for Antonia and her family?
- What would your team want to explore about this case if you were all practitioners grounded in this theory?



References and Resources

- Ainsworth, M. D. S. (1978). The Bowlby-Ainsworth attachment theory. *Behavioral and brain sciences, 1*(3), 436-438.
- Berk, L.E., (2019). Exploring Child Development. Pearson.
- Bronfenbrenner, U. (1992). *Ecological systems theory*. Jessica Kingsley Publishers.

References and Resources

- [Early Childhood Personnel Center \(ECPC\): Cross-Disciplinary Competencies](#)
- Harvard Center on the Developing Child: <https://developingchild.harvard.edu/resources/inbrief-the-science-of-early-childhood-development/>
- Sameroff, A. (2010). A unified theory of development: A dialectic integration of nature and nurture. *Child development, 81*(1), 6-22.



References and Resources

- Shepley, C., & Grisham-Brown, J. (2019). Applied behavior analysis in early childhood education: An overview of policies, research, blended practices, and the curriculum framework. *Behavior analysis in practice, 12(1)*, 235-246.

Disclaimer

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