Influences on development

- Genetic factors
- Effects of experience, exposure and parenting
- Environmental, broad “ecological” factors
Influences on development

- Nativist view.
- Abilities are “prewired”, and capacities come on line at certain fixed time.

- Nurture point of view (Vygotsky)
- Experience determines the direction of development and what is acquired.
Developmental status

- There are no “fixed” exact times to acquire skills
- There are different styles of development
- Development is “modular” to a degree: different skills develop at different rates
- Eg: motor, language, relatedness, imaginative play, etc.
Developmental lines

- **Sensorimotor line:** Sensory capacities and integration. Motor abilities, fine and gross.
- **Cognitive development:** Problem solving, perception of the world, understanding.
- **Emotional development:** Development of emotions, fears, empathy.
- **Interpersonal development:** Relatedness, understanding of others.
Other developmental lines

- Development of sleep patterns
- Development of eating abilities
- Social development
- Psychosexual and gender development
Developmental “stages”

- Newborn
- Infancy and toddlerhood (1 mo. to three years)
- Preschool child (3 to 5)
- School age child (latency) 6 to puberty
- Adolescent (puberty to 18?)
Newborn

- Physiological tasks of newborn (from aquatic to terrestrial existence)
- Bias toward social perception
- Less development motorically
- High perceptual development
- Reflex responses to elicit care
- Signaling equipment: cry, grasp reflex, etc.
Newborn “states” (Prechtl, Brazelton)

- State I. Deep Sleep
- State II. REM Sleep (high proportion)
- State III. Somnolence
- STATE IV QUIET ALERT (learning, relate)
- State V. Active Alert
- State VI. Cry
NBAS (Neonatal Behavioral Assessment). Brazelton

- Research tool with clinical applications
- Evaluates reflex behavior, neurological organization, individual reactivity
- Habituation, Self-organization, responsiveness, visual pursuit, auditory perception
- Soothability, molding, responsiveness
Infancy and toddlerhood

- Important “organizers” in infancy
- Social smile. 1 month. Powerful reinforcer and trigger for caregivers
- “hatching” around 2 months. Baby more intentional and elicits interactions
- Cooing responses. Around 2/3 months
- “conversations” since four months
Infancy. Organizers (ctd)

- Sitting around 6 mo. With support
- Grasping around 5 months, reaching
- Pincer grasp around 9-10 months
- “pointing” around 12 months
- Mutual attention, around 11-12 months, both persons pay attention to the same object
Infancy organizers, ctd

- Evidence of “attachment” around 6 months
- ATTACHMENT. Exclusive, unique relationship
- Secure Base. Help infant re-organize and feel comfort
- Security allows Exploration
- Internal working models of relationships (Bowlby).
Infancy. Emotions

- 9 months appearance of fear reactions
- Reaction to strangers. Around 8 to 9 months (stranger anxiety)
- Separation anxiety around 11-12 months. Child will shadow caregiver and stay in close proximity mostly.
- With increased mobility comes more anxiety
- *Rapprochement* (Mahler)
- Social referencing (looking at mother’s face)
Infancy and toddlerhood

- First birthday
- Increased weight about three times
- Growth of brain and increased cortex development
- Learn to walk (maintain balance)
- Understanding of intentionality and agency
Infancy. Eating

- From suckling to sucking (first weeks)
- From sucking to munching (4 months)
- Munching to chewing (7-8 months)
- From purees to semisolids to solids
- Vertical chewing to rotatory chewing
- Autonomy in eating, around 10 months, Holding spoon
- Playing with food, exploration
- Feeding as SOCIAL EVENT
Infancy . Sleeping

- First sleeping through the day in short periods. About 16 hrs of sleep
- Sleep starts with REM Sleep.
- Function of REM sleep?
- Circadian rhythm. 3-4 months
- All infants wake up in the night
- Question of going back to sleep, whether external intervention or by him/herself
Preschool age child. Channels of development

- **LANGUAGE**. Receptive. Expressive. Speech
- **MOTOR DEVELOPMENT**. Gross skills, fine skills, coordination, planning, sequencing, etc.
- **COGNITIVE DEVELOPMENT**. Piaget’s notion of PRE-OPERATIONAL stage
Preschool. Channels of development

- Learn self-interest
- Control of aggression, impulses
- Development of longer attention span
- Development of more sophisticated PLAY patterns (pretend appears at 20 months)
Preschool. Cognition

- A “naïve psychologist”
- A “naïve physicist” (Baron-Cohen)
- 3-4 years. Development of Theory of Mind (what is in the mind of the other), Also of “false belief” and of “pretense” (fool others)
- Develop theories about human interaction and exchanges
Preschool Cognition

- Piaget. “pre-operational stage”
- Concept of operations, e.g. mathematical, volume, physics problems
- Child only holds in mind one variable at a time when asked to solve a problem.
- Child’s cognition is dominated by perception. E.g. If something looks longer, it must have more elements
Preschool. Motor development

- 3-4 years old. Development of handedness (dominance of one hand, i.e. hemispheric specialization)
- Fine motor skills. Pencil grasp, tripod
- Ability to draw circle. 3 years.
- Square at 4 years. Triangle at 5 years
Preschool gross motor

- Motor planning abilities
- Running. 2 years.
- Jumping, skipping 3-4 years
- Assessment of posture (against gravity)
- Of Muscular Strength
- Of Muscular tone
- Persistence of primitive reflexes and "soft" neurological signs
Preschool . emotional

- Importance of pretense
- Magical World. Belief in stories and magic
- Concept of time . Difference between reality and pretence
- Statements depend in large part on listener
- Pretend play. Learning, mastery of experiences, identification with parents, etc.
Preschool language

- 3 year old. Ability to maintain true conversations
- Ability to close circles of communication.
- “average” length of utterance
- Important to assess receptive skills separate from expressive skills.
- Instructions without using gestures
- Speech
School age child

- Cognitive development
- Acquisition of academic skills
- Adaptive behavior in classroom setting
- Emotional development
- Social development
- Play is more interactive and in teams
- Moral development
School age cognition

- Piaget’s notion of CONCRETE OPERATIONS
- Principle of CONSERVATION.
- Ability to hold two variables in mind at the same time to solve a problem. Eg. Volume remains the same whether in a large container or small container (9 years)
School age. Cognition. Mathematical development

- Learning to count through “tagging”
- Use of the fingers and other body parts
- Principle of ordinality
- Principle of cardinality (the final count is the number of things)
- Principles of addition
- Principles of subtraction
Cognition. Learning to read

- Reading as a new acquisition, artificial
- Phonetic aspects of language
- Phonological skills and reading
- Relative less importance of visual skills
- Decoding of words, Word attack.
- Sequencing of words. Syntactical principles
- Punctuation
Learning to write

- Importance of language skills and phonological skills
- Importance of fine motor skills in speed of writing
- Sequencing abilities in the CNS
- Attentional skills
- Opportunity to practice
Language abilities

- Components of language
- Semantics (the meaning of words and sentences)
- Syntax. Order of words makes a difference
- Phonological issues
- Pragmatics. Use of language according to context (figure speech, sarcasm, intonation)
Social development

- Importance of reading minds and reading context
- Concept of self as learner
- Self-esteem
- Ability to take turns and reciprocate
- “playground politics” (Greenspan). Rank and pecking order, alliances, etc.
School age. Anxieties

- Fears commonly reported by school age children
- Fears of robbers and burglars
- Fears of needles and medical procedures
- Concept of disease as acquired
- Fears of being lost and of ridicule in social situation
Moral development

- Moral “realism” (Piaget)
- Laws are absolute principles
- Punishment is given for breaking rule
- Intentionality and circumstances are less important (cognitive ability)
- Indignation with “unfairness”
School age. Classroom behavior

- Ecological factors influencing behavior
- Quality of teaching and properties of teacher
- Quality of instructional material and tasks required
- High degree of self-control, attention and focus
- Importance of emotional climate in classroom
Sensory integration

- Sensory processing of stimuli
- Visual, auditory, tactile
- Vestibular, proprioceptive, olfactory, gustatory
- Processing inside the brain. E.g. figure vs. background
- Organization of adaptive response. SELF REGULATION
Adolescence

- Concept of adolescence
- Adolescent behavior and culture
- Cognitive Development
- Social development
- Puberty
- Moral development
Adolescence

- New concept in cultures. A time of transition between childhood and adulthood
- Not existent in some cultures
- Majority of parents do not see it as a troubled time, nor the adolescents
- Need for adjustments, new strategies, given multiple changes
Adolescence: Cognitive development

- Piaget. Appearance of “abstract operations” thinking
- Ability to think logically about abstract problems, i.e. problems in the mind and not in the concrete world
- Ability to see several points, even contradictory, at the same time
- Ability to reason and discover falsehood
Adolescence. Cognitive

- New way of thinking.
- Concern about wider social problems, ethical issues, economic issues.
- Question of parental values and attitudes.
- Discovery of new values and “idols” or figures to be admired.
- Thinking in the present, rather than the future.
Adolescence cognitive.

- Acting as though in front of “imaginary audience”
- Acting as though one were invulnerable
- Bad things happen to other people
- Searching for values, appearance, new identity
- Interest in certain subjects and fields
Adolescence. Puberty

- Puberty as a biological phenomenon
- First signs of puberty. Reaction according to gender. Girls less optimistic
- Early puberty risk factor for girls, not so much for boys
- Impact of hormones on mood, on physical appearance, changes in the body
Puberty

- Changes in the body lead to uncertainty
- Concerns about weight gain in girls
- Concerns about acne and muscular development in boys
- Facial changes
- Search for hair style, a “signature”
- Earlier development in girls
- Interest in sexuality
Adolescence. Social development

- Importance of conformity in early adolescence
- More autonomy and self-reliance in late adolescence
- Importance of friendships
- Need for physical contact, emotional support and containment
Adolescent

- Strive toward further development and autonomy.
- At same time pull toward childhood behavior, fear of growing, being a child
- Oscillations between independence and dependency
- Mood changes, more intense
Adolescent Moral Development

- Search for values and attitudes
- Questioning parental values
- Ability to think of intentionality, attenuating factors and context (Kohler)
- Able to see different points of view, pros and cons
- Relativism of moral behavior