Lecture 1 (WK1L1)

Historical Foundations

- Plato:
  - Emphasised self-control and discipline as the most important elements of education
  - Believed that children are born with innate knowledge
- Aristotle:
  - Wrote that education should meet the needs of the child
  - Believed that all knowledge comes from experience and that the infant mind is like a blackboard with nothing written on it as yet

Middle ages view of children

- Not regarded as different from adults apart from size-treated like adults, working from age 7
- Either thought of as pure, waiting to be corrupted by the world, or ignorant creatures that learn morals

Preformationism

- Pythagoras (5th century BCE) – fathers give essential characteristics; mothers merely provide a substrate
- William Harvey (mid 17th century) - asserted all animals come from eggs
- Van Leeuwenhoek (late 17th century) – the father of microscopy – first to identify spermatozoa.
- Some preformationists argued perfectly formed humans resided within the sperm, others the ovum

Locke - 1690

- Children are neither innately good nor bad, but are nothing at all
- Focused on growth of child

Rousseau

- Children have their own modes of feeling and thinking
- Grow according to nature-develop different capacities at different stages
- People are inherently good but are enslaved by social forces
- Children should be given freedom to learn spontaneously

Charles Darwin

- Theory of evolution

Alfred Binet

- Systematic testing of children's intelligence
- Different stages can occur at the same age

Hall and Gesell

- Presented questionnaires to parents and teachers to detail aspects of development

Sigmund Freud

- Based psychodynamic theories of development on analysis of childhood recollections and dreams

John Watson

- Behaviouralist methodology

- Children’s development is determined by environmental factors-rewards and punishment

7 enduring themes

1. Nature and nurture
2. Children's roles in their own development
3. Continuity/discontinuity
4. Mechanisms for developmental change
5. Socio-cultural context
6. Individual differences in child development
7. Research and children's welfare

Lecture 2 (WK1L2)

Piagetian theory

- Stages of development
  - Sensory motor (0-2)-9 months+ have an idea of object permanence
  - Pre-operational (2-5)-child begins to actively develop mental representations
  - Concrete operational (5-12)-children able to mentally manipulate internal representations
  - Formal operational (12+)- higher order reasoning
- Key ideas
  - Qualitative changes in children's thoughts
  - Invariant sequence of general patterns of thought
  - Development of operational intelligence
- Problems
  - Focused on children's inabilities rather than abilities
  - Focused on individual rather than social context
  - Focused on decontextualized rather than every day tasks
  - Little to say about language development
  - Technological limits

Vygotsky's theory of cognitive development

- Emphasised role of socialisation and social-cultural context in child's development
- Zone of proximal development
  - Relationship between self and other
  - Importance of cultural practice and cognition

Lecture 3 (WK2L1)

William James 1890-Infants 'starter kit'

- Reflexes
- Sensory abilities
- Socio-emotional capabilities

Milestones in motor development

- Lifts head up-2 months
- Rolls over- 2 1/2 months
- Sits propped up-3 months
- Sits without support -6 months
- Stands holding on- 6 1/2 months
- Walks holding on- 9 months
- Stands momentarily- 10 months
- Stands alone- 11 months
- Walks alone- 12 months
- Walks backwards- 14 months
- Walks up stairs- 17 months
- Kicks ball-20 months

Infant reflexes

- Automatic responses to different stimulations
- Patterns of behaviour

Newborn reflexes

- Babinski: fanning out of toes when foot stroked
- Crawling: rhythmic moving of arms and legs when on tummy and pressure applied to soles of feet
- Grasping: finger grasp when object placed in hand
- Rooting: head turn with mouth open when touched on cheek
- Moro: outstretched arms & arched back when startled or loss of support
- Stepping: toes and foot coordinated movements when supported on a hard surface, moved forward

Infant sensory abilities

- Scaffold the development of cognitive and social competencies
- Sight
    - Poor acuity
    - Colour perception by 1 month
    - Depth perception
        - Binocular
        - Pictorial depth
- Touch
    - Sensitive to temperature change
    - Sensitivity to pain controversial
- Sound
    - Can distinguish mums voice from a stranger
    - Discriminate sounds of speech in their own language from other languages by 6 months
- Taste
    - Changes in mouth chemistry

- Smell
    - Breast feeding children prefer mothers smell
    - Bottle fed infants prefer the smell of lactating females

Social development

- Spitz (1965)-Children in orphanages
    - Delayed development
    - More vulnerable to infections
    - Feeding and sleeping problems
    - Died more often

Emotional development

- Expressions
    - Basic primary emotions
- Recognition
    - Expressions imitated at 3 days

Variations in attachment (Ainsworth et al.1978)

- Different situations result in different levels of distress
- Indicates type of attachment between caregiver and infant
- 3 types of attachment
    - Secure
    - Anxious-resistant
    - Anxious-avoidant

Lecture 4 (WK2L2)

Development in infants before birth

- Hear and learn sounds in last 2 months before birth
- Can recognize mothers voice at birth

Newborn hearing development

- Cannot hear soft sounds well
- Fairly good at determining location of a sound

Piaget- beyond infancy

- Sensorimotor-understands world through senses and actions
- Pre-operational- understands world through symbols and mental images
- Concrete-operational- understands the world through logical thinking and categories
- Operational- understands world through hypothetical thinking and scientific reasoning

Sensorimotor stage

- Substage 1 (0-1 month)
    - Modify reflex
    - Cantered on own body
- Substage 2 (1-4 months)
    - Organize reflexes
    - Integrate actions
- Substage 3 (4-8 months)
    - Repetition of actions resulting in pleasurable or interesting results
    - Object permanence
- Substage 4 (8-12 months)
    - Begin searching for hidden objects
    - A-not-B error
- Substage 5 (12-18 months)
    - Active exploration of potential use of objects
- Substage 6 (18-24 months)
    - Enduring mental representations

Object permanence

- Understanding that objects exist even when they cannot be seen or touched

Simple hiding problem

- 0-5 months
    - Toy disappears under towel
- 6-9 months
    - Toy can be found

Changed hiding place

- 8-12 months
    - Toy can only be identified under 1 of 2 towels
    - Mastered between 10-12 months

Invisible displacement

- 12-28 months
    - Infants watch researchers hide toy under hand and then under a napkin

    - Infants look under hand not napkin
    - Mastered by 18 months

Piaget's legacy

- Positives
    - Good overview of children's thinking at different points
    - Broad spectrum of development and ages
    - Fascinating observations
- Negatives
    - Model depicts children's thinking as more consistent than it actually is
    - Vague about cognitive processes, hence information processing accounts of developmental change

Core knowledge theories-Spelke and Kinzler (2007)

- Children are domain specific-infant information theories

Possible vs impossible events

- Refers to what children see in the real world
- Infants make predictions in the world they are living

Core-knowledge systems

- Domain specific
    - each system represent only a small subset of the things and events that infants perceive
- Task specific
    - each system functions to solve a limited set of problems
- Encapsulated
    - each system operates with a fair degree of independence from other cognitive systems

Spelke & Kinzler- initial knowledge suggestions

- Knowledge emerges in early development
- Initial knowledge is domain specific
- Initial knowledge is constrained
- Initial knowledge is innate
- Initial knowledge constitutes the core of mature knowledge
- Initial knowledge is task specific

The brain

- Develops past infancy
- Brain imaging technology typically cannot be used with babies- coincide with important changes in development