

Week 1 – Introduction

► **Literature Review Notes:**

- Use peer-reviewed research
- What is the question asking – identify relevant theoretical/conceptual issues, critical evaluation
- Group and categorise of similar issues
- Read – annotate – think – sort – report
- Identify your own argument → what conclusions can you draw from your reading that addresses the specific questions? Can you use examples to illustrate your points?
- Use cautious language

► **Overview of Developmental Theories:**

- Developmental psychology: Systematic changes and continuities in the individual that occur between conception and death
- Types of change:
 - ⇒ Positive change: growth in competence or capacity
 - ⇒ Negative change: loss of competence or capacity
 - ⇒ Quantitative change: more or less of something e.g. weight, height, vocab
 - ⇒ Qualitative change: involves the appearance of something new e.g. new behaviour (sitting-crawling-walking) and reorganisation of thought and action
 - ⇒ Normative change: universal – virtually all children share e.g. walking, talking
 - ⇒ Individual change: variability – different rates/sequences of development, uniqueness
- Developmental processes:
 - ⇒ Maturation: the biological unfolding of the individual according to a plan contained in the genes - nature
 - ⇒ Learning: the process through which experience brings about relatively permanent changes in thoughts, feelings or behaviour – nurture
 - ⇒ Epigenetics: the process through which experience and environment can influence gene expression

► **Baltes: A lifespan perspective**

- 7 key assumptions about development:
 1. Lifelong process – any single period of development is best understood within a lifespan context
 2. Multi-directional – growth, decline and stability can occur at any age
 3. Involves both gains and losses at every age
 4. Lifelong plasticity – change in response to positive and negative experiences
 5. Historically embedded – cohort effects
 6. Contextualise as a paradigm
 7. Understanding development requires multiple disciplines
- Individuals respond to and act on contexts: physical environment, historical context, social context and cultural context
- Normative age-graded influences: biological and environmental influences that are similar for individuals in a particular age group (in a particular context)

► **Bronfenbrenner: Ecological theory**

- Microsystem: parents, siblings, surroundings
- Mesosystem: Interrelationships among influences (microsystem)
- Exosystem: extended family, parent's workplace, community facilities, friends and neighbours
- Macrosystem: country's customs, values, laws – political climate
- Chronosystem: dimension of time – historical context

► **Contextual-systems theories:**

- Positive legacy: systematic examination of the nature of biological and environmental influences on development

► **Age as an explanatory variable**

- Lifespan definitions culturally and historically constrained
- Different age-grades/norms in different culture cohorts → physical age, psychological age and social age
- Neugarten’s social clock – socially prescribed time for things to happen

Week 2A – Genetic and environmental influences

► **Intellectual background to Nature/Nurture discussion:**

- Darwin: Genetic variation in a species
 - ⇒ Some genes more adaptive than others
 - ⇒ Genes that aid adaptation are more likely to be passed on – natural selection
- Mendel: Individual heredity (peas)
- Watson and Crick: DNA molecule
- Behavioural genetics: the study of the contributions of nature and nurture to human and animal behaviour and behavioural diversity
- Gottlieb: Epigenetics
 - ⇒ Changes in gene expression due to base pairs in DNA being turned off or turned on in response to environment/experience

► **Genes:**

- Units of hereditary info – blueprint for development
- Comprised of short segments of DNA
- Genes (in pairs, one from each parent) are carried on chromosomes (n=46)

<u>Mitosis</u>	<u>Meiosis</u>
<ul style="list-style-type: none"> ▪ Normal cell replication for somatic reproduction (skin, blood, muscles) ▪ Process that ensures duplicate cell in genetically identical to the original ▪ Each cell contains 2 sets of chromosomes ▪ Used for growth and repair of tissues 	<ul style="list-style-type: none"> ▪ Special process of cell division for sexual reproduction ▪ Produces ‘haploid cells’ each with half the number of chromosomes as the parent cell ▪ After division, each cell has only one set of chromosomes ▪ Occurs prior to formation of sperm/ova ▪ Occurs only in gametes ▪ At fertilisation, chromosomes are recombined to produce a different genetic combination (mixture of maternal and paternal DNA)

- Mutations: ‘errors’ in the process of meiosis or mitosis mean that chromosomal mutations can occur (1/200 foetuses)

► **Genetic Principles:**

- Dominant-recessive gene principle
 - ⇒ 2 hereditary elements for each trait – 1 from male parent, 1 from female parent
 - ⇒ The 2 alternate forms of the same gene are called ‘alleles’
 - ⇒ Only if both genes in a pair are recessive will the influence of the recessive gene be expressed
 - ⇒ Genotype = genetic constitution
 - ⇒ Phenotype = observable characteristic
 - ⇒ *Genetic disorders*:
 - If disorders are dominant = expressed in every individual carrying the allele e.g. Huntington’s disease (1 in 2 chance of inheritance)
 - If disorders are recessive = both parents have to carry the gene e.g. Cystic fibrosis (1 in 4 chance of inheritance)
 - ⇒ *Co-dominance*: effect of recessive gene not totally makes – phenotype is a compromise e.g. AB blood type, skin colour