

Psych exam notes

These notes are split into 4 parts: Human development/clinical psychology/quantitative methods & social psychology

HUMAN DEVELOPMENT

Lecture 1: Introduction to Understanding Human Development

Highlighted + !! = appeared in practice tests/ seemingly important

1. What is the definition of developmental psychology?

a)!Developmental psychology= Systematic changes and continuities in 3 domains:

- **Physical Development.** The growth of body and organs (e.g., brain, physical signs of ageing, changes in motor abilities);
- **Cognitive Development.** Perception, language, learning, memory, problem-solving, mental processes;
- **Psychosocial Development.** Personal and interpersonal aspects of development (e.g., motives, emotions, personality traits)

2. Historical Foundations:

Plato & Aristotle both believed that long-term welfare of society depended on raising children appropriately

Plato: Emphasized self-control and discipline; believed that a child was born with innate knowledge

Aristotle: more concerned with fitting child rearing to the needs of individual child; believed knowledge came from experience. 2000 years later John Locke and Jean-Jacques Rousseau refocused attention on child development.

John Locke: Child a blank slate (tabula rasa), parents set good example of honesty, stability and gentleness

Jean-Jacques Rousseau: children should be given maximum freedom from the beginning. They learn from spontaneous interactions with objects and people.

Social reform movements

Earl of Shaftesbury (law) – children under 10 should not work in mines

Darwin's Theory of Evolution:

Used son for case study

Child development as a discipline:

- Binet measurement of IQ

- Sigmund Freud: Psychoanalytic theory
- John Watson: Behaviorist theor

3. What were some enduring themes?

Nature V Nurture: Impact of genes/your genetic makeup on who you are; how much has your genes impacted who you are compared to your environment?

Activity v Passivity: To what degree do children shape their own environment?

Continuity V Discontinuity: In what ways is development continuous (height) or discontinuous (one state of understanding to another, no in between)?

Mechanisms of developmental change: How does change occur?

Universality vs Context Specificity: How does the sociocultural context (where you are from) influence development? + Is development similar from person to person and culture to culture?

Individual Differences: How do children become so different from each other?

Research and Children's welfare: How can research promote children's wellbeing?

4. Nature v Nurture issue

How do biological forces and environmental forces act and interact to make us what we are?

Researchers on the 'Nature' side emphasise the influence of heredity, universal maturational processes guided by genes, biologically-based predispositions produced by evolution and biological influences such as hormones and brain growth spurts. Development is largely a process of **maturational**. **Maturational**= the process of maturing

Researchers on the 'Nurture' side emphasise the changes in response to the environment – all the external physical and social conditions, stimuli and events that can affect us. Development is largely a process of **learning**.

NATURE	NURTURE
Heredity	Environment
Maturation	Learning
Genes	Experience
Innate/Biologically-Based Systems	Cultural Influences

Developmental changes are the products of a complex interplay between Nature (genetic endowment, biological influences and maturation) **AND** Nurture (environmental influences, experiences and learning) **It is not Nature or Nurture; it is Nature and Nurture.**

5. How do we conceptualize development?

A Russian-born American Psychologist – **Urie Bronfenbrenner (1917 – 2005)** became concerned that early developmental scientists were studying human development out of context, expecting it to be universal and failing to appreciate that it could vary from culture to culture, from neighbourhood to neighbourhood and from home to home.

Bronfenbrenner formulated a model to describe environmental influences on development – a **Bio-Ecological Model**.

In Bronfenbrenner's view, the developing person, with his or her genetic makeup and biological and psychological characteristics, is embedded in a series of environmental systems.

These systems interact with one another and with the individual over time to influence development.

6. !!Bronfenbrenner's Bio-ecological Model

Bronfenbrenner conceptualizes the environment as a set of nested structures, each inside another. Each structure emphasizes a different level of influence. The environmental forces at each level vary in effect on each child. There is complex interconnectedness among the levels, which are called systems.

These systems are:

- **Microsystem**: immediate physical & social environment (e.g., the parents, grandparents, child-care centre).
- **Mesosystem**: interrelationships or linkages between two or more microsystems (e.g., problems a teenager experiences at school may affect home life).
- **Exosystem**: linkages involving social systems individuals do not experience directly (e.g., changes in the parents' workplaces may affect home life).
- **Macrosystem**: larger cultural context in which microsystem, mesosystem and exosystem are embedded (e.g., cultural beliefs, customs, laws etc.).
- **Chronosystem**: changes in people and their environments occurring across time (e.g., attitudes to child-rearing in the 20th century compared to present day).

Lecture 2: How is Human development studied?

1. How is development studied?

The Scientific Method:

- A process of generating ideas and testing them by making observations.
- Preliminary observations provide ideas for a **theory** – a set of concepts and propositions to describe and explain certain phenomena.
- Theories generate specific predictions or **hypotheses**.
- Research studies are then designed to test the hypotheses.

The Scientific Method in summary:

Theories generate hypotheses which are tested through observation of behaviour.

!A good theory should be:

- Internally consistent – its different parts and propositions should hang together and not generate contradictory hypotheses;
- Falsifiable – it can be proved wrong;
- Supported by data – predictions can be confirmed by research results.

Sample Selection:

- Studies focus on a particular research sample with the intention of generalising to a larger population.
- The sample must be representative of the population of interest (e.g., premature infants, Aboriginal elders).

The best approach is to study a random sample drawn from the population – this increases confidence that conclusions will be true for the entire population.

Data Collection:

- We need to find appropriate ways to measure what interests us.
- Methods are varied depending on the age group and aspect of development being studied.

Three major methods of data collection are:

- Verbal Reports;
- Behavioural Observations;
- Physiological Measurements.

Verbal Reports: interviews, questionnaires/surveys, personality scales, ability/achievement tests, involving asking people questions about themselves and/or others.

Pros

Questions are asked in exactly the same order so responses can be directly compared.

Cons

- Cannot be used with infants and young children;
- Different ages understand the questions differently;
- Participants represent themselves in a positive or socially desirable light.

Behavioural Observation: observing people in their everyday (natural) surroundings.

Pros

Infants and young children who lack verbal skills for questionnaires can be studied.

Cons

- Some behaviours (e.g., heroic effort to help in emergencies) occur infrequently and unexpectedly;
- Difficult to isolate the cause of the behaviour as many events happen at the same time;
- Presence of an observer may affect behaviour.

Physiological Measurements: using electrodes or fMRI to measure activity in the brain.

Pros

- Can determine which areas of the brain are involved in particular cognitive activities;
- Hard to fake results.

Cons

- Very expensive and time-consuming (particularly fMRI);
- Not always clear what is being assessed.

Once developmental scientists have formulated hypotheses, chosen a sample and decided on what to measure and how to measure it, they can test their hypotheses.

!! Three main methods are used in developmental research:

- The Case Study;
- Experimental Method;
- Correlational Method.

(1) A case study:

...is an in-depth examination of an individual (or small number of individuals).

Information from a variety of sources, such as observation, testing and interviewing is compiled and analyzed.

Pros: Can be used to study people with rare conditions.

Cons

- Conclusions based on a single case may not generalize;
- Inferences are more like speculation than scientific findings.

(2) Experimental method

In an experiment, an investigator manipulates some aspect of the environment to see how it affects participants.

The goal is to see whether different treatments that form the independent variable have differing effects on outcome – the dependent variable.

Pros: Can be establish unambiguously that one thing causes another.

Cons

- Laboratory settings differ from the real world;
- Ethical considerations restrict what is possible.

(3) Correlational method

Most developmental research is correlational rather than experimental.

Involves determining whether 2 or more variables are related in a systematic way.

A correlation coefficient is calculated which ranges in value from -1.0 to $+1.0$.

- A positive correlation means that as one variable increases the other increases.
- A negative correlation means that as one variable increases the other decreases.
- A zero correlation means that there is no association.

Pros

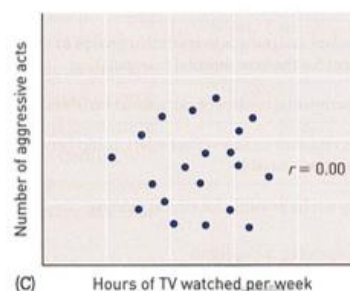
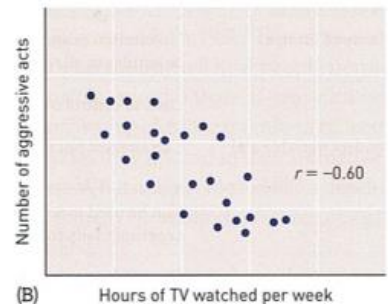
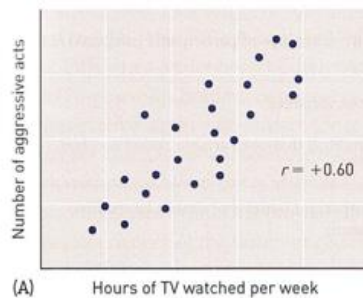
- Allows for observations of people as they are to determine whether there are relationships among their experiences, characteristics and developmental outcomes.

- Can learn about multiple factors operating in the 'real world'.

Cons

- Cannot make assumptions about cause and effect;
- It is possible that the association between 2 variables is caused by a third unexamined variable.

Overall, the understanding of why humans develop in the ways they do is best advanced when the results of different kinds of studies converge – i.e., when experiments demonstrate a clear cause-effect relationship that is reflected in correlational studies of the same variables



Historically, researchers have conducted either cross-sectional or longitudinal research studies. To address some of the limitations of these studies sequential and microgenetic research designs have more recently been adopted.

2. !! Research design and methods

There are 4 designs:

- Cross-sectional
- Longitudinal
- Sequential
- Microgenetic

(1) Cross-sectional Designs – sampling across ages at one point in time.

Pros: Measurements of several different age groups can be made at a single time-point

Cons

- Cohort effects (being born into a particular historical context) can confound the results.
- The person is measured at one point – the results are silent on the developmental trajectory of that person.

(2) Longitudinal Designs – sampling the same individuals across a span of time.

Pros

Can measure developmental changes in specific individuals across time.

- Determines whether characteristics are constant or changing.

Cons

- Participants drop out.
- Participants affected by repeated testing.
- May not be possible to generalize results to individuals of other age cohorts.

(3) **Sequential Designs** – sampling different ages and followed across a span of time.

Pros

Can tell researchers:

- which age-related trends are truly developmental in nature and reflects how most people, regardless of cohort, can be expected to change over time;
- which age trends differ from cohort to cohort; and
- Which trends suggest that a specific period of history similarly effect all cohorts.

Con: Extremely complex and time-consuming.

(4) **Microgenetic Designs**– multiple observations over a short time to document change as it happens.

Pros

- Measures learning as it occurs.
- Reveals different responses to the same stimulus in individuals.

Cons: Very labor-intensive and time consuming.

3. Special challenges for developmental research

Conducting culturally sensitive research

- Need to study individuals from a variety of ecological settings – not just white middle-class society.
- Questionnaires, interviews or test questions must be meaningful in the culture, sensitive to cultural norms and be free from cultural biases of the experimenter.
- Protecting the rights of research participants
- Need to be sensitive to issues of research ethics – the standards of conduct investigators are ethically bound to honour to protect participants from physical or psychological harm.

Protecting the rights of research participants

The rights of research participants are protected by:

- allowing them to make informed and uncoerced decisions about taking part in research – informed consent;
- debriefing them afterwards (especially if they are not told everything in advance or are deceived);
- ensuring that they are protected from physical or psychological harm;
- Keeping their response information confidential and private.