

## Complete Notes for Introduction to Psychology I (PSYC1010)

### Intro to Psychology

Psychology is defined as the scientific investigation of:

- mental processes
- behaviour and
- the *interaction* between them

Biology and culture provide possibilities and constraints within which people think, feel, and act.

The brain is designed to take shortcuts. Ways it does this are:

- Makes quick decisions about whether a situation is harmful or not
- Makes a decision about a person (friend, foe, potential mate)
- Sorts through stream of incoming data to focus on the important parts
- Uses heuristics, stereotypes, rules, categorisation etc.

#### Common themes of psychology:

- Nature vs nurture
  - Determinism vs free will
  - Similarities vs distinctions between people/groups
  - Reductionism (by understanding the parts you can understand the whole) vs interactionism (you can't study one part in isolation because everything is connected)
- 

### Branches of Psychology

#### Cartesian Dualism:

- The mind (soul) maintains a distinctly "non-physical" form and is separate from the body (which is just a tool)
- It receives information from the senses and the physical world via the brain
- Animals do not have a 'mind'

#### British Empiricism:

- There is no 'mind' - all thoughts are the result of physical processes (CNS)
- Determinism: all behaviours result from the total set of previous sensory experiences
- We are the product of experiences (nurture), but have no real control over our behaviour (determinism)

#### Biopsychology/Behavioural Neuroscience:

- The biological boundary of psychology
- Understanding the mind through understanding the biological activity of the brain
- Localisation of function: discrete brain regions play a significant role in discrete aspects of mental functioning. (Reductionism vs Interactionism)

#### Structuralism (Wundt):

- Sought to analyse the adult mind (defined as the sum total of experience from birth to the present) in terms of the simplest definable components and then to find the way in which these components fit together in complex forms
- Wilhelm Wundt - first true psychologist, used introspection to uncover the basic elements of consciousness

### Psychodynamic Perspective (Freud):

- Conscious and unconscious forces interact to control our thoughts and behaviours
- Behaviour is an interplay between thoughts, feelings, and wishes
- Some mental events are unconscious
- Mental processes can be in conflict, resulting in anxiety

### Behaviourist Perspective (Pavlov):

- The behaviour of humans can be understood without reference to internal states such as thoughts or feelings (reductionism)
- Stimuli become associated through conditioning → Classical conditioning and Operant conditioning

### Ethology:

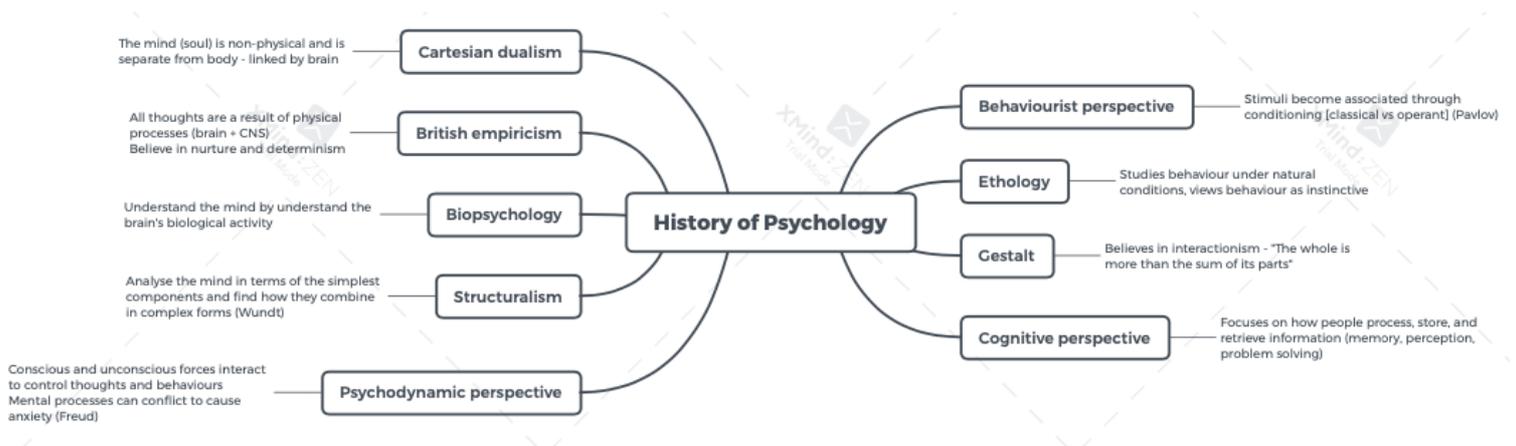
- Natural behaviour (nature and instinct)

### Gestalt:

- Combination of physics and ethology
- Stresses interconnectedness - "the whole is more than the sum of the parts."

### Cognitive perspective:

- Formed through the debate between Gestalts and Behaviourists
- Focuses on how people process, store and retrieve information



---

## Development

### Nature vs Nurture:

**Nature:** Genetically and biologically based maturation. Changes that follow a particular sequence with one preceding another

**Nurture:** Family, socioeconomic status, education, society, culture

- Both affect development and interact with each other
- Genes are not expressed without interaction with the environment
- Experiences turn genes on and off
- Experience-independent:

Based on maturation, experience and environmental input not necessary for the behaviour response to develop

- Experience-dependent:

Behaviour response doesn't appear until experience in some form and environmental input

- Experience-expectant:

Genetically predisposed behaviour, but only begins once the environment provides the conditions for the behaviour to be experience

Critical periods:

- Optimal periods in development where learners are sensitive to particular types of learning material and the acquisition of sensory information/skill/function
- Important for future development - if experiences do not occur in that period, the skill or function may not develop or be undeveloped
- In cases of extreme or limited social interaction (e.g., Romanian orphanages), some individuals never develop certain skills. Some go on to acquire skills rapidly, yet acquisition is atypical, limited and reaches a plateau
- The longer the critical periods are missed the less developmental gains are made
- Prenatal exposure to toxins and teratogens (drugs, radiation, viruses) during particular stages of foetal development can disturb aspects of development in progress at the time
- The nervous system is primed at particular points for new synaptic connections to be formed, strengthened and ready to receive environmental input in particular forms e.g. strengthening the connection between word dog and appearance of a dog

Neural pruning:

- The weakening of certain connections (neural pruning) is also important e.g. weakening connection between word dog and appearance of a cat
- Lack of neural pruning is associated with autism spectrum disorder and schizophrenia

Perceptual narrowing:

- Exposure to language and sensitivity to language sounds begins before infants begin to babble or speak
- Perceptual narrowing occurs → Stronger connections are formed for the language infants are exposed to and perceptual sensitivity is weakened in response to other languages

Abuse and limited emotional nurturing:

- Damages areas of the brain associated with behavioural and emotional control - atypical structure and function
- Experience of threat has an effect on fear learning pathways in the brain

Types of developmental change:

- Continuous: incremental and gradual alterations in behaviour. Adult development more continuous in nature.
- Discontinuous: distinct stages of change or proceed in a particular sequence. Childhood development more discontinuous and stage-like in nature.

Study designs in developmental psychology:

Cross-sectional design: different age groups tested at the same time

<b>Advantages</b>	<b>Disadvantages</b>
Allows for age comparisons	Limited in information on age changes
	Groups may differ

