

The emergence of psychology as a science/Origins refers to how different paradigms have dominated psychology and the timeline of its progression to scientific status.

1879	Wundt opened the first psychology lab in Germany and, as a result, Psychology emerged as a discipline.
1900	Freud established the psychodynamic approach, highlighting the importance of the unconscious mind, and developing psychoanalysis.
1913	Watson and Skinner: established the behaviourist approach, arguing that true scientific psychology should only study what is directly observed and measured.
1950s	Rogers and Maslow developed the humanistic approach, rejected views of behaviourist and psychodynamic approaches and emphasised the importance of free will.
1960s	The cognitive approach emerged with the introduction of the computer and was interested in studying mental processes.
1980s	The biological approach became the dominant approach in psychology due to advances in technology, such as brain scans.
2000	Cognitive neuroscience emerged at the forefront of psychology, which brings together the biological and cognitive approaches.



Wilhem Wundt (1832 – 1920)
 Wundt is considered the father of experimental psychology. His approach became known as structuralism because he used scientific methods to study human consciousness by breaking its structure down into smaller components, such as sensations and perceptions.

Introspection
 Wundt developed introspection which is the process in which a person examines their inner world, by consciously observing their thoughts and emotions. Wundt trained participants to do this in controlled environments, often exposing them to stimuli (e.g. noises) to investigate introspection.

Evaluating Wundt

- Watson and Skinner criticised the subjective nature of the personal observations which made it difficult to make generalisations from the research.
- Wundt’s work is regarded as experimental. For example, introspection was studied in controlled conditions and quantitative and qualitative data was captured.
- Psychology has become more scientific since Wundt’s work, due to the modernisation of methods used when studying the human brain. The use of experimental methods in biological psychology, such as brain imaging techniques, demonstrate the scientific and technological advances that psychologists are now utilising.

Key Assumptions

- The unconscious lies at the root of this hugely influential theory.
- The unconscious is inaccessible to conscious awareness.
- Traumatic memories from childhood are repressed.
- The unconscious mind can reveal itself through psychoanalysis.

Personality Structure

The personality is made up of three components: the ID, ego and superego.

- *ID*: governed by the pleasure principle (self gratification)
- *Ego*: governed by the reality principle and is tasked with taming the id and balancing the demands of the superego
- *Superego*: governed by the morality principle (sense of right and wrong)

Defence Mechanisms

Used by the ego to cope with the demands of the ID and superego. E.g.

- **Repression**: when trauma is forced into the unconscious mind.
- **Displacement**: feelings towards a target individual cannot be expressed directly and are therefore transferred onto someone/something else.

Psychosexual Stages

Children pass through stages where they must overcome a crisis. E.g.

Phallic stage (3-6yrs) The crisis is to learn gender identity. Boys must overcome the Oedipus complex (girls must overcome the Electra complex). Failure to do this could lead to gender identity issues.

Evaluation

- The approach has led to the development of psychoanalysis treatment which is proven to be effective. Biskup et al., (2005) found that after psychoanalytic therapy, 77% of patients showed clinical improvements.
- Freud's ideas demonstrate a significant gender bias; his obsession with the Oedipus complex is androcentric, and many would claim this makes them irrelevant to an understanding of women.
- Psychoanalytic theory has been criticised for being culturally biased. All of Freud's patients came from the Viennese middle-class, and his universal generalisations were based on this highly unrepresentative sample.
- The case of Little Hans can be used to support the concepts of the phallic stage, repression, and the Oedipus Complex.
- The approach takes both a nomothetic and idiographic approach. It aims to generate laws of behaviour but does so using methods such as case studies.

Emergence of psychology as a science

The psychodynamic approach shifted Wundt's ideas and instead focused on the role of the unconscious mind. This is a less scientific approach than others but has contributed to our understanding and treatment of conditions.

Key Assumptions

- Psychologists should only study observable, quantifiable behaviour.
- All behaviour is learned and can be unlearned.
- Humans are no different from animals and should not be regarded as more complex.
- Research on animal behaviour is directly relevant to humans.

Classical Conditioning

An existing involuntary reflex is associated with a new stimulus.

A neutral stimulus (no response) is associated with an *unconditioned response* (a reflex response) producing a *conditioned response*. E.g. in Pavlov's dog study, the neutral stimulus (bell) produces no response, but when paired with food (unconditioned stimulus) the dogs learned to salivate to the bell alone.

Operant Conditioning

Skinner suggested that behaviour is the result of learning through the consequences of our actions. He found three types of reinforcement, as seen in his rat study:

- *Positive*: when a behaviour is followed by a desirable consequence (The rats got food when they pressed a lever).
- *Negative*: when a behaviour results in something undesirable being removed (The rats stopped the electric shocks by pressing a lever).
- *Punishment*: when behaviour results in something unpleasant.

Evaluation

- The behaviourists were influential in the use of animals as research subjects, since it gives experimenters more control over the process, without demand characteristics or individual differences influencing findings.
- The study of Little Albert supports the behaviourist approach. It showed that phobias can be learned through the process of classical conditioning.
- The behaviourist approach has made important contributions to our modern understanding of human mental illness. For example, many phobias are thought to be the result of earlier unpleasant learning experiences and can be treated with methods such as flooding.
- Behaviourists ignore alternative levels of explanation including the role of cognition and emotional factors in influencing behaviour.

Emergence of psychology as a science

The behaviourist approach rejected Wundt's ideas of introspection, claiming that psychology should be more objective and that we should only research what is observable, with experimental methods, and animal studies.

Key Assumptions

- Behaviour is learned through observation and imitation of others
- Learning can occur through direct experience or indirect experience
- We can learn through vicarious reinforcement
- Cognitive processes influence our behaviour

Observation, Imitation, Reinforcement

Learning occurs through observing and imitating behaviour performed by role models (anyone we admire, respect, or identify with).

When children observe the behaviour of a model, they imitate it. They will imitate it again if they are positively reinforced for doing so.

Children observe the consequences of behaviours. If outcomes are positive, the child is likely to repeat them; if negative, they will not. This vicarious reinforcement.

Mediational Processes

These are cognitive processes that occur between stimulus (the observation of a behaviour) and response (the imitation of the behaviour).

- Attention: observation cannot take place without paying attention
- Retention: our ability to remember what we observe
- Reproduction: our ability to imitate what we remember
- Motivation: whether we want to imitate what we remember

Evaluation

- Bandura's Bobo doll study supports SLT. E.g. Children who saw the aggressive model produced more aggressive acts than those in either of the other two groups.
- Bandura made extensive use of the experimental laboratory method, which is artificial, strictly controlled and contrived in its very nature. Therefore, the research lacks ecological validity.
- The approach has positive applications to real-world issues such as explaining criminal behaviour, and the effectiveness of advertising. Andsager et al. (2006) found that 'identification with a character or example may increase the likelihood that audiences will model behaviour presented in an anti-alcohol message'.
- One limitation is the issue of causality. It is not clear if people learn behaviour from models, or if they seek out models who exhibit behaviour or attitudes they already favour.
- Research into SLT generally takes a nomothetic approach as it attempts to generate general laws of behaviour which can be widely applied.

Emergence of psychology as a science

SLT acknowledges the role of cognitive factors and rejects the notion that learning is the outcome of a stimulus-response loop. It recognises multiple factors to explain behaviour and uses experimental methods.

Key Assumptions

- Subjectivity should be emphasised to understand individuals
- We have free will over our behaviour and development
- Humans are complex and cannot be understood by studying them in parts

Maslow's Hierarchy of Needs

A model of psychological development where deficiencies at each level need to be fulfilled to progress up to self-actualisation.

E.g. satisfying physiological and safety needs prepares people for achieving love and belonging, then self-esteem, and finally self-actualisation.

Congruence

This is when there is an agreement between an individual's self-concept and their ideal self. This helps people progress through the hierarchy of needs, but when people are 'incongruent', this is jeopardised.

Conditions of Worth / Positive Self Regard

- Self-worth impacts psychological well-being.
- Experiencing conditional positive regard leads to people developing conditions of worth.
- Conditions of worth: a type of expectation an individual feels they must meet to be accepted and loved.
- Conditions of worth can produce a feeling of incongruence

Evaluation

- Humanism has led to person-centred therapy/counselling psychology, which aims to reduce incongruence and allow an individual to recognise both their psychological limits and their strengths and achieve a realistic balance between them.
- The evidence for the existence of Maslow's hierarchy of needs is empirically thin. However, this is to be expected from an approach that disputes the validity of empirical research. Plus, it is hard to scientifically test the effectiveness of humanistic counselling.
- Some critics argue that the humanistic approach offers an unrealistic view of human nature. It focuses on health, goals, and growth, rather than acknowledging difficulties with development.
- Advocates of this approach believe that behaviour is a choice, rather than determined by outside forces.
- The hierarchy of needs is culturally biased. Some cultures value cultural actualisation rather than self-actualisation.

Emergence of psychology as a science

Humanism rejects ideas that behaviour should be broken up into pieces to be studied, preferring to adopt holistic approaches. Additionally, they reject the idea that we do not have free will over our behaviour.

Key Assumptions

- Internal mental processes influence our behaviour
- We must draw inferences from experiments to understand behaviour.

The Role of Schema

Schemas: mental frameworks of information that we use to organise experiences, interpret, and respond to new situations. They help us make sense of ambiguous situations but can lead to errors.

Theoretical Models

Visual representations of internal mental processes are used to help researchers simplify and study complex processes. They are diagrams that show how information is passed between the different systems. E.g. WMM.

Computer Models

Computers in the 1960s led to computer models to explain different mental processes. E.g, the analogy of LTM being the hard disk and STM being the computer's RAM (Random Access Memory) has been applied to the human mind.

Cognitive Neuroscience

- Bridges the gap between cognitive and biological approaches.
- Results from developing techniques for scanning the living brain while actively processing information.
- Non-invasive brain scans are used to understand cognitive processes, such as thinking.

Evaluation of the Cognitive Approach

- Brain scans provide the approach with a strong scientific grounding, however, others insist that neuroimaging evidence is only correlational.
- The approach has real-world applications. E.g. research into EWT and misleading information led to the use of the cognitive interview.
- The approach is criticised for 'machine reductionism' and assuming that human behaviour and the mind can be compared to computers, despite humans being cognitively complex.
- The approach uses both nomothetic and idiographic approaches in since it utilises experimental methods to generate universal laws and draws on the findings of individual case studies.

Evaluation of Cognitive Neuroscience

It is based on objective and scientific research and has helped to understand and treat many conditions. E.g. EEGs help us understand brain waves during sleep and diagnose sleep disorders. It has also led to the development of AI which will have an impact on the economy.

Emergence of psychology as a science

The cognitive approach relies on drawing inferences from experiments, but later used brain scanning methods to research how the mind functions.

Key Assumptions

- All behaviour is first physical (e.g. genetic)
- Nature is more powerful than nurture

Genetics

- Genes carry information for characteristics, such as eye colour and IQ.
- Genotype: a person's genetic makeup
- Phenotype: the expression of genes which leads to observable characteristics of a person and is influenced by the environment.

Biological Structures

- The structure of the brain, CNS, PNS, and the endocrine system determine our behaviour.
- E.g. different lobes of the brain are linked with general functions, for example, the occipital lobe is associated with visual perception, and the nervous system sends messages via neurons.

Neurochemistry

- Neurochemicals are transmitted via synaptic transmissions.
- Imbalances affect behaviour. E.g. low serotonin causes low mood, and high dopamine is linked to schizophrenia.
- Hormones are released into the bloodstream and travel to cells. E.g. testes release testosterone which can affect puberty and aggression.

Evolution

The process of natural selection ensures characteristics which aid survival and reproduction are passed from one generation to the next, genetically.

Evaluation

- Biological explanations are often based on correlational results, which does not mean that one event causes the other. E.g. low serotonin can cause low mood, and vice versa.
- The approach is deterministic. Explanations like evolution imply humans have little control over their behaviour, and we are predetermined to act in a certain way regardless of free will.
- The approach utilises scientific methods of research. E.g. fMRIs, drug trials, and EEGs, which are less susceptible to misinterpretation
- The approach has many real-world applications. E.g. antidepressants work to increase serotonin levels in the brain, based on the understanding of how low levels of serotonin contribute to depressive symptoms.
- The approach is reductionist. It explains behaviour using genetic, neurochemical or structural explanations resulting in only one level of explanation being explored.

Emergence of psychology as a science

The biological approach aims to establish cause and effect, so rejects the cognitive approach's reliance on drawing inferences from research. This approach adopts objective and replicable research, e.g. hormone tests or brain scans.

Psychodynamic V Humanism

- The Psychodynamic approach focuses on what is 'wrong' with people, whereas humanism focuses on growth and healthy self-development.
- The Psychodynamic approach is culturally biased. It is based on patients from one area. The humanistic approach is also culturally biased. Some value cultural actualisation, not self-actualisation.
- Psychodynamic approaches attempt to establish general laws of behaviour (nomothetic), yet Humanistic approaches do not, instead favouring idiographic attempts to understand the whole person.

Biological V Cognitive

- The biological approach relies on experimental research and scans to establish cause and effect however, the cognitive approach only draws inferences from research.
- Both approaches helped to establish the field of cognitive neuroscience, which has helped advance A.I. and the use of brain scans to understand human behaviour.
- Biological research uses both human and animal studies, however cognitive studies generally focus on humans.

Behaviourist V Social Learning Theory

- Behaviourism states that people learn behaviour through direct experience, whereas SLT claims we can learn indirectly, through vicarious learning.
- Behaviourism research is focused on animals (E.g. Skinners Rats) whereas SLT focuses on using humans in research (E.g. Bobo Doll study).
- Both approaches favour the role of nurture, claiming that all behaviour is learned through experience, rather than caused by nature.

Biological V Psychodynamic

- The biological approach uses objective research methods, such as brain scans, whereas the psychodynamic approach uses subjective case studies.
- The biological approach has led to medical interventions for depression, such as SSRI medication. In contrast, the psychodynamic approach led to talking therapy and dream analysis.
- The biological approach is falsifiable. In contrast, psychodynamic ideas are conceptual and non-falsifiable.

Humanism V Behaviourism

- Humanism focuses on the whole person, whilst behaviourism reduces behaviour down to stimulus-response processes.
- Both approaches consider our life experiences to be influential on our development.
- There is a wealth of research support for behaviourism (e.g. Little Albert) but less so for Humanism.

Biological V Social Learning Theory

- The biological approach is focused on the influence of nature predominantly, yet SLT is focused on the role of nurture.
- The biological approach is criticised for biological reductionism, and SLT is criticised for environmental reductionism.
- Both approaches are supported by a wealth of empirical evidence.