

CUET · PSYCHOLOGY · CLASS XI · CODE 324

What is Psychology?

CUET unit: Introduction to Psychology / Foundations of Psychology

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Snapshot

- Establishes the formal definition of psychology as a science of mental processes, experiences and behaviour in different contexts.
- Differentiates psychology as a natural science (objective, cause-effect, hypothetico-deductive) from psychology as a social science (socio-cultural, multiple causes).
- Traces the evolution of modern psychology — structuralism, functionalism, Gestalt, behaviourism, psychoanalysis, humanistic and cognitive perspectives.
- Charts the development of psychology in India (Calcutta 1916, Bose, Sengupta, Durganand Sinha's four phases).
- Surveys branches of psychology and its interface with other disciplines — frequently tested as match-type/branch-identification questions in CUET.

Detailed Notes

2.1 Core concepts

NCERT opens with Norman Cousins's epigram — "The growth of the human mind is still high adventure, in many ways the highest adventure on earth" — and frames psychology as both an ancient question and a young science. The word "psychology" derives from two Greek words — **psyche** (soul) and **logos** (science or study of a subject) — so historically it was a study of the soul or mind, but it has since moved away to "establish itself as a scientific discipline which deals with processes underlying human experience and behaviour" across individual, dyadic, group and organisational levels with biological as well as social bases (NCERT §What is Psychology?, p. 2).

The **formal definition** given on p. 3 is: "**Psychology is defined formally as a science which studies mental processes, experiences and behaviour in different contexts.** In doing so, it uses methods of biological and social sciences to obtain data systematically." Three constituent terms must be understood with precision. **Mental processes** are "states of consciousness or awareness" used while thinking, problem-solving, knowing, remembering, perceiving and feeling. Brain activity and mental activity are "mutually overlapping processes but they are not identical." Unlike the brain, "the mind does not have a physical structure or has a location"; mind "emerges and evolves as our interactions and experiences in this world get dynamically organised in the form of a system" (NCERT p. 3). Mental activities go on even during sleep — we dream and

receive information such as a knock on the door. **Experiences** are "subjective in nature" — only the experiencing person can be aware of them; they are embedded in awareness or consciousness and are "influenced by internal and the external conditions" (e.g., a crowded bus on a hot summer day may not feel uncomfortable if one is going for a picnic with close friends). NCERT also flags esoteric experiences such as the altered states sought by a meditating Yogi or by a drug addict. **Behaviours** are "responses or reactions we make or activities we engage in" — simple or complex, short or enduring, **overt** (outwardly observable, like blinking) or **covert** (internal, like the hand-muscle twitches of a chess player). All behaviours, covert or overt, are triggered by some **stimulus (S)** and produce a **response (R)** — and both stimulus and response can be internal or external (NCERT pp. 3–4).

As a knowledge discipline, psychology is old but as a science it is young — its formal beginning is conventionally dated to **1879**, when **Wilhelm Wundt** founded the first experimental psychology laboratory in **Leipzig, Germany** (NCERT §Psychology as a Discipline, p. 4). Contemporary psychology has **two parallel streams** — one that uses the methods of physical and biological sciences and another that uses the methods of social and cultural sciences. As a **natural science** psychology assumes that "all behavioural phenomena have causes which can be discovered if we can collect data systematically under controlled conditions"; the researcher aims at cause-effect relationships, prediction and control. **Descartes** and developments in physics shaped this stream, which uses the **hypothetico-deductive model**: scientific advancement comes from a theory (e.g., the Big Bang in physics) from which a hypothesis is deduced and tested against empirical data; the theory is revised if data point elsewhere. NCERT also names the **evolutionary approach** as dominant in the biological sciences and applied within psychology to phenomena such as **attachment** and **aggression** (NCERT §Psychology as a Natural Science, pp. 4–5).

As a **social science** psychology studies behaviour in socio-cultural contexts where humans are not only influenced by their environments but also create them. The **Ranjita and Shabnam** story illustrates this (NCERT pp. 5–6): both classmates in the same village, but when floods hit, Shabnam's house was destroyed and Ranjita's family took her in. The point is that while some regularity in helping behaviour can be predicted, not every villager was equally helpful and in some similar circumstances people loot and exploit — so the same general principle cannot capture every case, and psychology must engage with culture and community (NCERT pp. 5–6).

Under **Understanding Mind and Behaviour** (NCERT p. 6) the mind-brain question is addressed with three case studies: (i) patients whose **occipital lobes** were surgically removed continued to "respond correctly to location and configuration of visual cues"; (ii) an athlete who lost an arm in a motorcycle accident continued to feel a "**phantom arm**" that reached for a coffee cup; (iii) a young man who after brain injury believed his parents had been replaced by "duplicates" who were impostors. In each case "the person had suffered from damage of some part of the brain but his 'mind' had remained intact." Neuroscientists like **Sperry** and physicists like **Penrose** restored

respect to the concept of "mind". Recent affective-neuroscience evidence and the work of **Ornish** on patients with blocked arteries — who through positive visualisation reduced blockage — establish a clear mind-body link. A new discipline called **Psychoneuroimmunology** has emerged that emphasises "the role played by the mind in strengthening the immune system" (NCERT p. 6).

Popular notions about behaviour are often wrong (NCERT pp. 6–7). Common-sense is based on **hindsight** — sayings such as "Out of sight, out of mind" and "Distance makes the heart grow fonder" make opposite claims, and which one is invoked depends on what happens. **Dweck's (1975) study** took two groups of children trained for 25 days. The first received only easy problems; the second received a mix of easy and difficult problems and were taught — when they failed — to "attribute failure to their lack of effort." When new problems were given afterwards, those given only easy problems "gave up much faster when they faced failure" than those who had experienced both success and failure with attribution training — overturning the common-sense view that one should only give children easy tasks to build confidence (NCERT p. 7). NCERT also notes that empirical studies have shown that the common-sense beliefs that "men are more intelligent than women" or that "women cause more accidents than men" are untrue.

Evolution of Psychology (NCERT pp. 8–10) — the major schools. **Wilhelm Wundt** founded **structuralism** at Leipzig in 1879 — interested in conscious experience, he sought to analyse the constituents or **building blocks** of the mind through **introspection**, in which subjects described their own mental processes in detail. The method was criticised as less scientific because reports could not be verified by outside observers. **William James**, an American psychologist, set up a psychological laboratory at **Cambridge, Massachusetts** soon after Wundt and developed the **functionalist** approach — studying what the mind does and how behaviour functions in enabling people to adapt; consciousness is an ongoing stream interacting with the environment. The educational thinker **John Dewey** used functionalism to argue that humans function effectively by adapting to their environment. In the early twentieth century **Gestalt psychology** emerged in Germany (around **1912**) as a reaction to Wundt's structuralism — perceptual experience is more than the sum of its components (a series of flashing bulbs is **experienced** as movement; a movie is experienced as continuous though it is a rapid series of still images). Another reaction to structuralism came in the form of **behaviourism**: around **1910 John B. Watson** — greatly influenced by physiologists like **Ivan Pavlov** on classical conditioning — rejected mind and consciousness as subject matter, and defined psychology as "a study of behaviour or responses (to stimuli) which can be measured and studied objectively." **B. F. Skinner** later popularised and extended behaviourism. Meanwhile **Sigmund Freud** "shook the world with his radical view of human nature", founding **psychoanalysis**, viewing human beings as motivated by unconscious desires for the gratification of pleasure-seeking (and often sexual) drives, and treating abnormal symptoms as symbolic manifestations of these unconscious conflicts. The **humanistic perspective** (Carl Rogers, Abraham Maslow) took a more positive view — emphasising free will and the natural striving to

grow and unfold one's inner potential; they argued behaviourism undermined human freedom and dignity. Elements of Gestalt and structuralism then combined to produce the **cognitive perspective** — **cognition** is the process of knowing, and modern cognitive psychology views the mind as an information processor like a computer that receives, processes, stores and retrieves. **Constructivism** is the further view that human beings actively construct their own minds: **Piaget's** child development is a constructivist theory of mind, while the Russian psychologist **Vygotsky** went further to claim that the mind is "a joint cultural construction and emerges as a result of interaction between children and adults" (NCERT p. 10).

Box 1.1 — Some Interesting Landmarks in the Evolution of Modern Psychology

(NCERT p. 9) lists: 1879 Wundt's Leipzig lab; 1890 William James's Principles of Psychology; 1895 Functionalism formulated as a system; 1900 Freud develops Psychoanalysis; 1904 Pavlov's Nobel; 1905 Binet–Simon intelligence test; **1912 Gestalt born in Germany; 1916 First Psychology Department at Calcutta University; 1922 Psychology included in Indian Science Congress; 1924 Indian Psychological Association founded and Watson publishes Behaviourism; 1928 Sengupta and Mukerjee publish first textbook on Social Psychology;** 1949 Defence Psychological Research Wing; 1951 Rogers's Client-Centred Therapy; 1953 Skinner's Science and Human Behaviour; 1954 Maslow's Motivation and Personality + Bureau of Psychology at Allahabad; 1955 NIMHANS Bangalore; 1962 Ranchi Hospital; 1973 Lorenz and Tinbergen Nobel; 1978 Herbert Simon Nobel for decision-making; 1981 Hubel & Wiesel Nobel + Sperry's Nobel for split-brain research; 1989 National Academy of Psychology (NAOP) India; 1997 NBRC Gurgaon; 2002 Kahneman Nobel for judgment and decision-making under uncertainty; 2005 Thomas Schelling Nobel for game theory in economic behaviour.

Development of Psychology in India (NCERT pp. 10–11): the first syllabus of experimental psychology was introduced and the first psychology laboratory was established at the **Department of Philosophy, Calcutta University in 1915**; Calcutta then started the **first Department of Psychology in 1916**, and a Department of Applied Psychology in 1938. **Dr. N. N. Sengupta** — trained in the USA in the Wundtian experimental tradition — greatly influenced early experimental psychology at Calcutta; **Professor G. Bose** was trained in Freudian psychoanalysis and **established the Indian Psychoanalytical Association in 1922**. Mysore and Patna became other early centres of teaching and research. There are two UGC centres of excellence — at Utkal University, Bhubaneswar, and at the University of Allahabad. **Durganand Sinha's** 1986 book Psychology in a Third World Country: The Indian Experience maps four phases: (i) the **pre-independence phase** dominated by experimental, psychoanalytic and psychological testing research (mirroring Western development); (ii) up to the **1960s** — expansion into different branches of psychology with a desire to establish an Indian identity by applying Western ideas to the Indian situation; (iii) **post-1960s** — problem-oriented research focused on the needs of Indian society, recognising the limits of excessive dependence on Western psychology; (iv) from the **late 1970s** — the phase of **indigenisation**, rejecting the Western framework and stressing the need to develop

an understanding rooted in Indian cultural and traditional knowledge from ancient texts and scriptures.

The **Branches of Psychology** (NCERT pp. 11–13) include: **Cognitive Psychology** (attention, perception, memory, reasoning, problem-solving, decision-making, language — experimental + ecological); **Biological Psychology / Neuropsychology** (brain, nervous system, immune system, genetics — using EEG, PET, fMRI); **Developmental Psychology** (life-span growth from conception to old age); **Social Psychology** (attitudes, conformity, obedience to authority, interpersonal attraction, prejudice, aggression, intergroup relations); **Cross-cultural and Cultural Psychology** (behaviour as product of culture); **Environmental Psychology** (temperature, humidity, pollution, disasters); **Health Psychology** (stress, coping, prevention); **Clinical and Counselling Psychology** (disorders such as anxiety, depression, eating disorders, chronic substance abuse vs everyday adjustment); **Industrial/Organisational Psychology** (workplace behaviour, training, selection); **Educational Psychology** and **School Psychology**; **Sports Psychology**; and other emerging branches — aviation, space, military, forensic, rural, engineering, managerial, community, women, political psychology. NCERT draws the explicit distinction (p. 12): a **clinical psychologist** has a psychology degree; a **psychiatrist** has a medical degree; "**psychiatrists can prescribe medications and give electroshock treatments whereas clinical psychologist cannot**". A **counselling psychologist** sometimes deals with people who have less serious problems.

Psychology and Other Disciplines (NCERT pp. 13–16) — illustrated by **Fig. 1.1** as a radial diagram with psychology at the centre — includes: **Philosophy** (Wundt drew on philosophy of mind), **Medicine** (a healthy body requires a healthy mind), **Economics, Political Science and Sociology** (Nobel laureates **H. Simon, D. Kahneman, T. Schelling** drew on psychology), **Computer Science** (mimicking the mind; cognitive sciences), **Law and Criminology** (witness memory, jury decisions), **Mass Communication, Music and Fine Arts** (Music Therapy using Ragas), **Architecture and Engineering** (designing for users). **Psychology in Everyday Life** helps with study habits, memory, decision-making, exam stress and intervention programmes for poverty, intergroup violence, and environmental degradation (NCERT pp. 16–17).

2.2 Definitions to memorise

Term	Definition	Page
Psychology	A science which studies mental processes, experiences and behaviour in different contexts.	3
Psyche / Logos	Greek roots — soul / science or study of a subject	2
Mental processes	States of consciousness/awareness used while thinking, problem-solving, remembering, learning, perceiving, feeling	3
Experience		3

Term	Definition	Page
	Subjective state embedded in awareness/ consciousness; influenced by internal & external conditions	
Behaviour	Responses or reactions or activities; overt or covert; triggered by stimulus	3–4
Stimulus (S) and Response (R)	Both can be internal or external; triggers and results of behaviour	4
Overt behaviour	Outwardly visible behaviour, e.g., blinking when something is hurled at you	3
Covert behaviour	Internal behaviour, e.g., chess player's hand-muscle twitches	3
Hypothetico-deductive model	Theory → hypothesis → empirical test; revise theory if data diverge	5
Introspection	Procedure used by structuralists in which subjects describe in detail their own mental processes/ experiences	8
Structuralism	Wundt's approach analysing constituents/structure of mind through introspection	8
Functionalism	William James — focus on what the mind does and how behaviour helps people adapt	8
Gestalt psychology	German school (~1912) holding that perceptual experience is more than the sum of its parts — holistic	8
Behaviourism	Watson's approach defining psychology as study of observable behaviour/responses to stimuli	8
Psychoanalysis	Freud's system viewing behaviour as dynamic manifestation of unconscious desires and conflicts	8–9
Humanistic perspective	Rogers, Maslow — positive view of human nature emphasising free will and growth	9
Cognition / Cognitive perspective	The process of knowing — thinking, perceiving, memorising, problem-solving; mind as information processor	10
Constructivism	Active construction of mind; Piaget (child constructs own mind), Vygotsky (joint cultural construction)	10
Phantom limb	Continued sensation of a lost limb — case used to argue mind ≠ brain	6
Psychoneuroimmunology	Discipline emphasising role of mind in strengthening the immune system	6
Indigenisation	Late-1970s phase of Indian psychology — culturally rooted framework based on Indian traditions	11

Term	Definition	Page
Clinical psychologist	Has psychology degree; treats psychological disorders; cannot prescribe medication or electroshock	12
Psychiatrist	Has medical degree; can prescribe medication and electroshock	12
Counselling psychologist	Deals with less serious problems and everyday adjustment, career and personal advising	12

2.3 Diagrams / processes to remember

- Box 1.1 — Some Interesting Landmarks in the Evolution of Modern Psychology** (p. 9): 1879 Wundt; 1890 James; 1895 Functionalism; 1900 Freud; 1904 Pavlov Nobel; 1905 Binet–Simon; 1912 Gestalt born; 1916 First Psychology Department at Calcutta; 1922 Psychology in Indian Science Congress; 1924 Indian Psychological Association + Watson's **Behaviourism**; 1928 Sengupta–Mukerjee textbook on Social Psychology; 1949 Defence Psychological Research Wing; 1951 Rogers's **Client-Centred Therapy**; 1953 Skinner's **Science and Human Behaviour**; 1954 Maslow's **Motivation and Personality** + Bureau of Psychology Allahabad; 1955 NIMHANS Bangalore; 1962 Ranchi Hospital; 1973 Lorenz & Tinbergen Nobel; 1978 Herbert Simon Nobel; 1981 Sperry split-brain Nobel + Hubel & Wiesel Nobel; 1989 NAOP India; 1997 NBRC Gurgaon; 2002 Kahneman Nobel; 2005 Schelling Nobel.
- Fig. 1.1 — Psychology and Other Disciplines** (p. 15): radial diagram with Psychology at the centre linked to Political Science, Education, Economics, Philosophy, Music & Fine Arts, Computer Science, Law/Criminology, Medicine/Psychiatry, Mass Communication, Architecture & Engineering, Sociology.
- Two-streams diagram (implicit, p. 4)**: Natural Science stream (physical/biological methods; cause–effect, prediction, control; hypothetico-deductive) vs Social Science stream (multiple causes; person–context interaction; Ranjita–Shabnam case).
- Mind ≠ Brain three-case evidence (p. 6)**: occipital-lobe removal patient responding to visual configuration; phantom limb in the amateur athlete; "duplicate parents" case.

2.4 Common confusions / NTA trap points

- Mind vs Brain** — examiners often equate the two; mind cannot exist without brain but is a separate entity with no physical structure or location.
- Wundt 1879 Leipzig vs William James Cambridge Massachusetts** — both set up early labs; the first experimental lab and "formal beginning" is Wundt's. Don't confuse with the **1915 Calcutta** experimental lab (first in India) or the **1916 Calcutta Psychology Department**.
- Structuralism (Wundt, introspection) vs Functionalism (James, what mind does) vs Gestalt (whole > sum) vs Behaviourism (Watson, observable behaviour) vs Psychoanalysis (Freud, unconscious)** — match-the-following bait.

- **Clinical psychologist vs Psychiatrist** — only psychiatrists can prescribe medication and give electroshock; the clinical psychologist has a psychology degree, the psychiatrist a medical degree.
- **Sengupta (Wundtian, experimental, USA-trained) vs Bose (Freudian, psychoanalytic, founded Indian Psychoanalytical Association 1922)** — examiners swap these.
- **Piaget (child constructs own mind individually) vs Vygotsky (mind is a joint cultural construction)** — both constructivists but with a key difference.
- **1915 vs 1916 Calcutta** — 1915 was the experimental psychology laboratory in the Philosophy Department; 1916 was the first Psychology Department.
- **Dweck (1975)** — finding was that mixed easy + difficult problems WITH attribution-for-effort training led to greater persistence; not that easy problems alone build confidence.
- **Pavlov 1904 Nobel** — for work on the digestive system, not for psychology directly, though his findings led to classical conditioning.
- **2002 Kahneman Nobel** — for judgment and decision-making under uncertainty (Economics Nobel), often confused with a Psychology Nobel.

2.5 Thinkers / Theories cited in this chapter

Thinker / Construct	Theory or Concept	Where in NCERT
Norman Cousins	Epigraph: "The growth of the human mind is still high adventure"	Chapter opening
Wilhelm Wundt	Founded structuralism; first experimental psychology lab at Leipzig, 1879; used introspection	pp. 4, 8
William James	Functionalism — what the mind does; Cambridge Massachusetts lab; Principles of Psychology (1890)	pp. 8, Box 1.1 p. 9
John Dewey	Used functionalism educationally — humans function effectively by adapting to environment	p. 8
Gestalt school (1912 Germany)	Perceptual experience is holistic — more than the sum of its parts	p. 8
John B. Watson	Behaviourism (~1910); rejected mind/consciousness; psychology as study of observable behaviour	p. 8, Box 1.1
Ivan Pavlov	Classical conditioning; 1904 Nobel for work on digestive system	p. 8, Box 1.1
B. F. Skinner	Extended and popularised behaviourism; Science and Human Behaviour (1953)	p. 8, Box 1.1
Sigmund Freud	Psychoanalysis — unconscious pleasure-seeking sexual desires shape behaviour and disorder	pp. 8–9

Thinker / Construct	Theory or Concept	Where in NCERT
Carl Rogers	Humanistic perspective — free will; Client-Centred Therapy (1951)	p. 9, Box 1.1
Abraham Maslow	Humanistic perspective — natural striving to grow; Motivation and Personality (1954)	p. 9, Box 1.1
Jean Piaget	Constructivism — child actively constructs own mind	p. 10
Lev Vygotsky	Constructivism — mind as a joint cultural construction emerging through adult-child interaction	p. 10
Roger Sperry	Split-brain research (Nobel 1981); credited with restoring respect to concept of "mind"	pp. 6, Box 1.1
Roger Penrose	Physicist invoked as advocating a unified theory of mind	p. 6
Dean Ornish	Mind-body link — visualisation reducing arterial blockage	p. 6
Descartes	Influenced psychology's adoption of scientific method	p. 5
Dr. N. N. Sengupta	Wundtian/experimental founder of Indian academic psychology at Calcutta	p. 10
Professor G. Bose	Freudian psychoanalyst; founded Indian Psychoanalytical Association (1922)	p. 10
Durganand Sinha	Psychology in a Third World Country (1986) — four phases of Indian psychology	pp. 10–11
Carol Dweck (1975)	Attribution-for-effort study disproving common-sense "give only easy problems" view	p. 7
Daniel Kahneman	Nobel 2002 — judgment and decision-making under uncertainty	Box 1.1 p. 9

Practice MCQs

PYQ Alignment

This chapter is a high-frequency source in CUET Psychology — typically 5–8 MCQs per year — with NTA favouring: (i) the formal definition and the mental processes/experience/behaviour triad, (ii) date-and-founder matching from Box 1.1 (especially 1879 Wundt, 1916 Calcutta, 1922 Bose), (iii) school-of-thought matching (structuralism/functionalism/Gestalt/behaviourism/psychoanalysis/humanistic/cognitive), and (iv)



branch-identification scenarios such as the clinical-psychologist-vs-psychiatrist distinction.



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