

Yoga Psychology & Research

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Presentation in three parts

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- Part 1: History of Western/modern Psychology
- Part 2: Research on Yoga
- Part 3: Research in Yoga (Unique contribution of Yoga)



History of (Western) Psychology

Thoughts and feelings (dreams) as message of Gods



- Thoughts and emotions to be the work of Gods and Spirits – Commands of Gods
- Even Homer's Iliad does not reflect the idea of individual's mind. The thoughts and feelings of the people are put directly into their minds by gods. – 9th Century BC
- It is god that suggests things to Achilles
- Cyrus, founder of Persian empire saw in his dream that Darius was plotting against him.
- Disordered thoughts and madness were likewise interpreted as the work of spirits.
- Insanity considered as one of the many curses that God inflicts on those who does not obey his commands. (Dueteronomy)

First Experiment



- 'First experiment' by Psamtik I of Egypt – 7th Century BC
 - Upbringing of 2 babies in experimental condition

The discovery of the mind



- Sappho (in Greece) uses nous in the sense of rationalistic mind: She declared that at the age of 40, a man's nous is trained in all things' and in the fifties he is at his best in nous and tounge.'
- Temple of Appollo at Delphi: 'Know Thyself'

Wilhelm Wundt



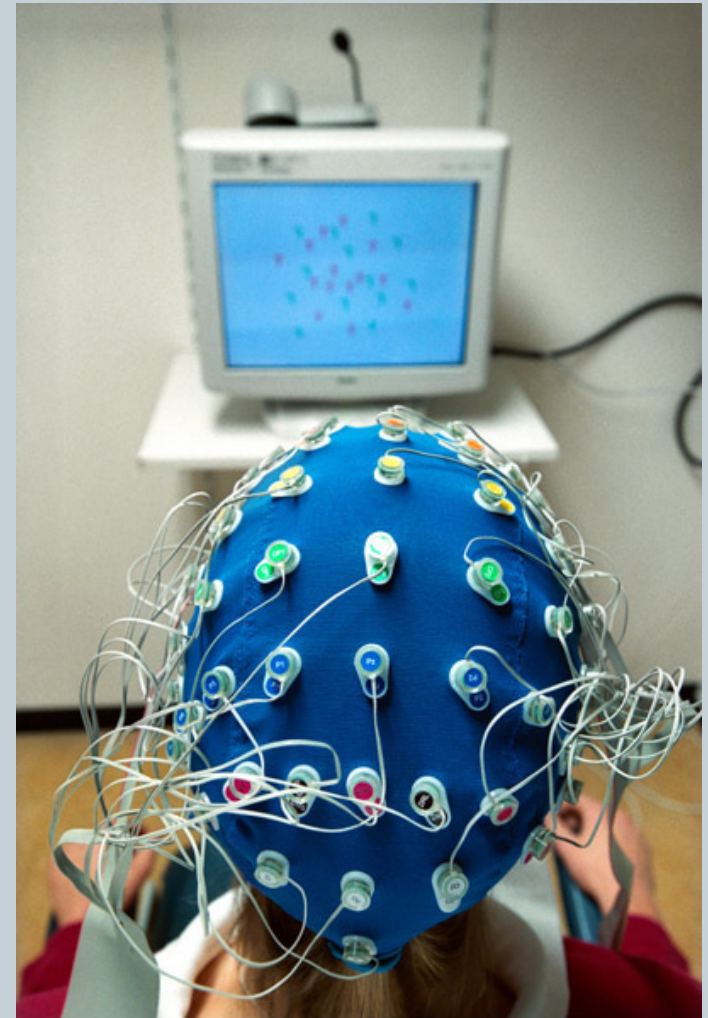
- Psychology was not considered an area of study until the 1870's when the ideas of the industrial revolution were applied to the fields of philosophy and physiology.
- The German scientist Wilhelm Wundt opened the first laboratory and faculty of Psychology in the University of Leipzig in 1879 and established the first Psychological Journal in 1881.
- He is estimated to have written over 54,000 pages of work. He was the first to apply the 'scientific' method to the field.

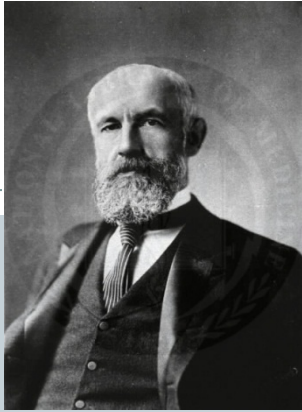


Consciousness



- His work focused on consciousness – or the awareness of immediate experience.
- However, it applied the rigors of the scientific process in the same way physics or chemistry would.
- Many students from around the world and particularly U.S.A., these students would go on to found 24 new schools across North America from 1883 to 1893





G. Stanley Hall



- One of Wundt's students was G. Stanley Hall who was vital for bringing the science of psychology to America.
- He founded the American Psychological Association and became its first president, he started America's first research laboratory at John's Hopkins University in 1883, he began the first journal of psychology in America.

Structuralism vs. Functionalism

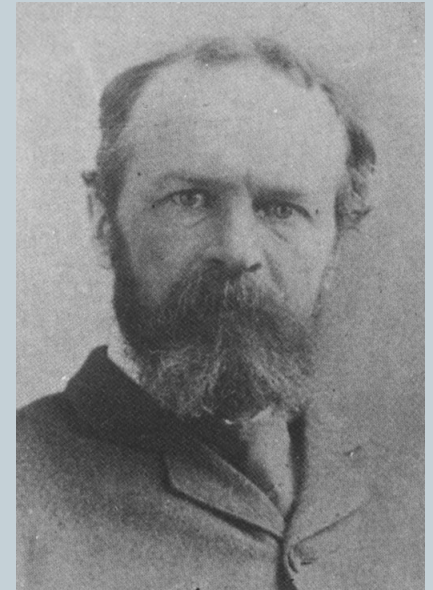


- At this time, psychology split into two main schools: structuralism vs. functionalism.
- Structuralists were led by Edward Tichner, they believed that the task of psychology was to analyze consciousness into its basic elements and study how these were related. These elements would include ideas like sensations, emotions, and images.
- These investigations were based on introspection by trained subjects.
- Introspection – careful, systematic self-observation of one's own conscious experience.

William James



- Functionalism became popular with the publication of *Principles of Psychology* in 1890 by William James.
- The work became the standard text for psychological departments and is still required reading in many university programs.
- Functionalism is the idea that psychology should focus on the function or purpose of consciousness rather than its structure.



Comparison

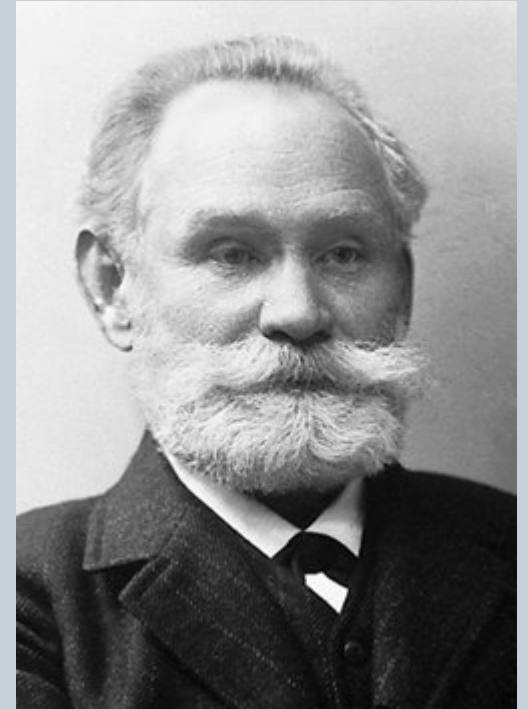


- Structuralists focused their work in the laboratory and on sensation and perception.
- Functionalism took the field in new directions and focused on mental testing, education, and adolescent development.
- Functionalism's practical application of early psychological principles led to the formation of the next major development.

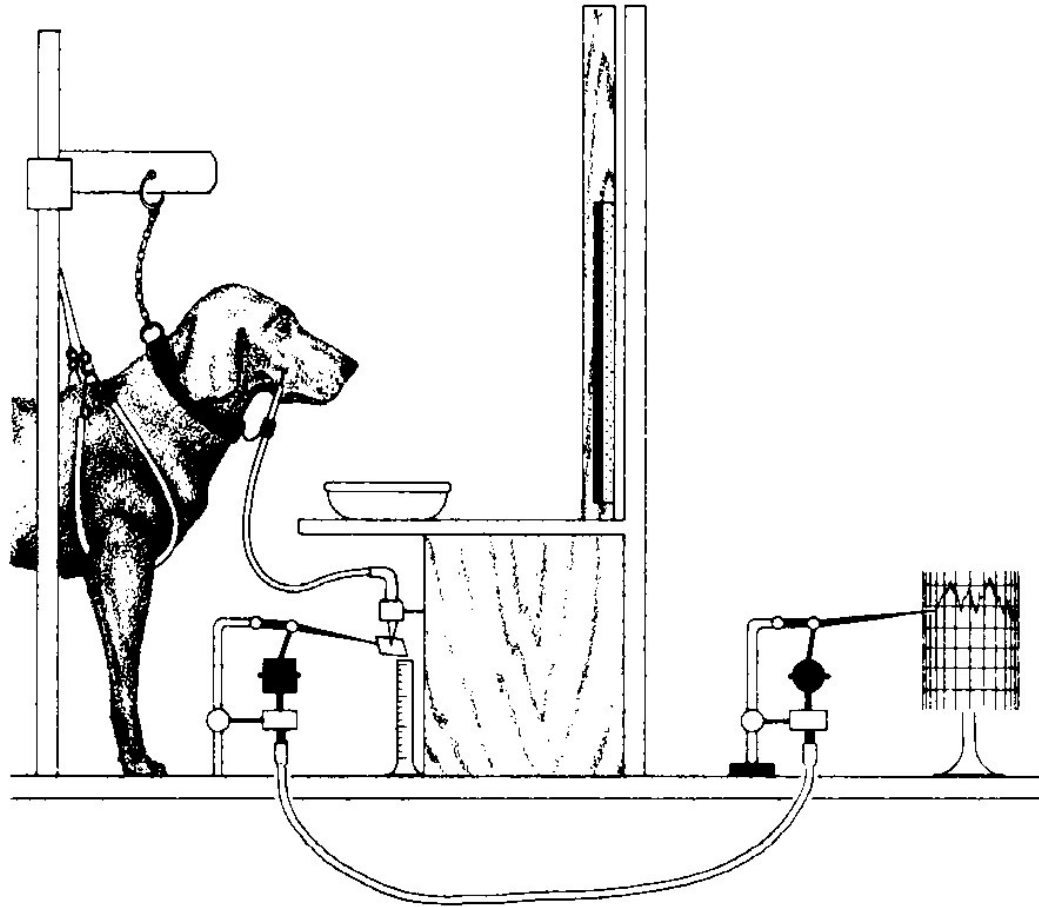
Pavlov



- Ivan Pavlov, a Russian physiologist, began studying stimuli and behaviour in animals in 1906.
- He succeeded in replacing the sight of food with a bell as the triggering stimuli causing the dog to salivate.
- This type of *conditioning* revealed much about the relationship of stimuli and responses in organisms leading to the formation of a new approach to psychology called behaviourism.



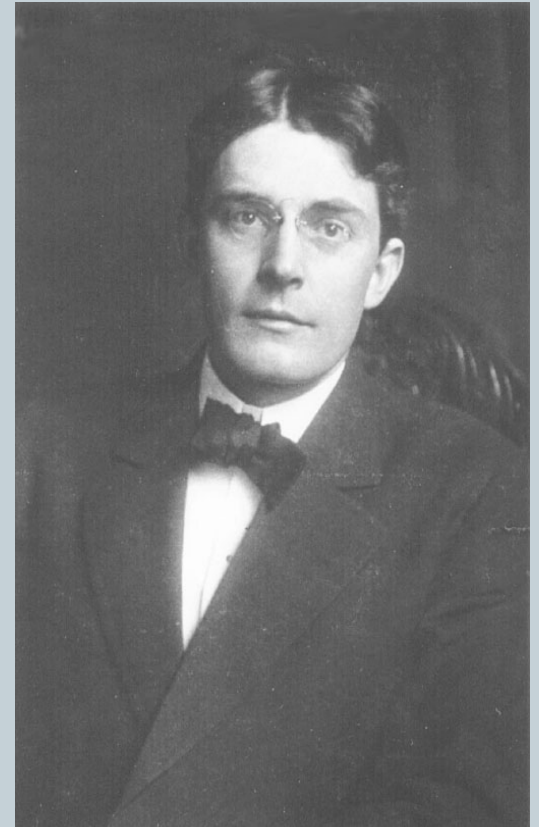
Pavlov's Dog



Behaviourism



- Behaviourism was founded by John B. Watson in 1913.
- It stated that scientists should only study observable behaviour and that consciousness should be abandoned because ultimately, consciousness and perceptions are private events and cannot be objectively verified.



I can make them anything....



- Give me a dozen healthy infants, well-formed, and my own specified world to bring them up in and I'll guarantee to take any one at random and train him to become any type of specialist I might select—doctor, lawyer, artist, merchant-chief and, yes, even beggar-man and thief, regardless of his talents, penchants, tendencies, abilities, vocations, and race of his ancestors. (1930).

Nature vs. Nurture



- Behaviourism sparked the nature vs. nurture debate with its strong emphasis on stimulus and response (S-R psychology)
- Stimulus – any detectable input from the environment.
- Behaviour – any overt and observable response or activity by an organism.

B.F. Skinner



- Behaviourism gained greater influence in the 1950's with the work of B.F. Skinner, who was voted the most important influence in the history of psychology.
- By using stimulus and response pairings, he could control the behaviour of rats and pigeons with remarkable consistency.



“Free will is an illusion...”

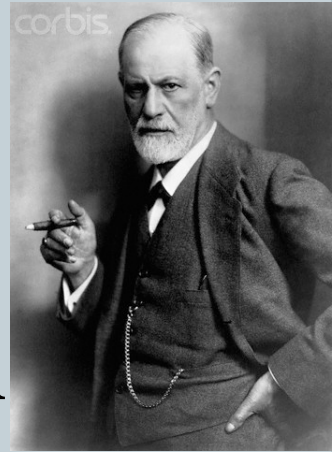


- He discovered the principle that organisms tend to repeat responses that lead to positive outcomes and not repeat responses that lead to negative ones.
- This simple principle would go on to form the foundation of behaviour modification used in schools, prisons, factories and hospitals.
- Skinner’s work sparked heated debates over the concepts of free will and determinism in his work “Beyond Freedom and Dignity”. If all our behaviour was determined by external stimuli, what choice did we really have concerning our behaviours and desires?

Sigmund Freud



- Sigmund Freud – Austrian physician who founded the psychoanalytic approach to psychology.
- From his work on people with psychological problems like phobias, irrational fears, and anxieties, Freud developed a theory based on the existence of the unconscious. He felt that these disturbances were based on personal conflicts on an unconscious level.



Freud's Consulting Room



Freud's consulting room, 2012

Resistance to unconscious

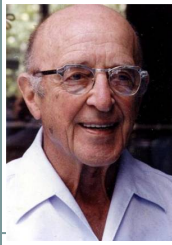


- The theory initially faced great resistance because of its reliance on unconscious, let alone conscious events in a time when observable science dominated.
- Unconscious – collection of thoughts, memories, and desires that are well below the surface of conscious awareness but that exert influence on behaviour.
- Psychoanalytic Theory – explains personality, motivation, and mental disorders by focusing on unconscious determinants of behaviour.

Humanists' revolt



- This debate sparked the next wave of innovation in psychology.
- Humanism was a direct reaction to the stripping of free will that psychoanalytic theory and behaviourism entailed.
- Humanism is the approach that emphasizes the unique qualities of humans, personal freedom, and personal growth.



Carl Rogers & Abraham Maslow



- Humanism was championed by Carl Rogers and Abraham Maslow. They both believed that human behaviour is determined by an individual's “self-concept”, which animals presumably lack.
- **Each of these self-concepts seeks to grow, evolve and develop and psychological disturbances arise when these drives are blocked.**

Need Hierarchy Theory - I



Self-actualization needs

Self-esteem needs

Belongingness needs

Safety needs

Physiological needs

Need Hierarchy Theory - II

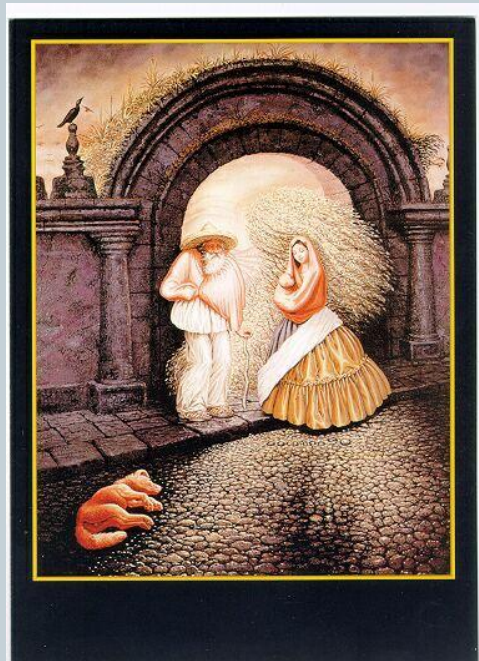


Categorization	Need Level	Fulfilment sought
Growth needs	Self-actualization needs	Seeks fulfilment of personal potentials
	Esteem needs	Seeks recognition through achievements
	Belongingness needs	Seeks affiliation with a group
Basic needs	Safety needs	Seeks security and safety through order
	Physiological (survival) needs	Seeks to obtain basic necessities of life including air, water, food, sleep and sex

Gestalt



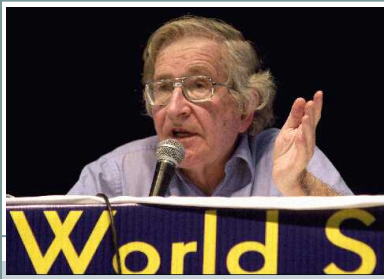
- Gestalt Psychology – the belief that consciousness and behaviour must be studied as a whole rather than in separate disciplines.



Clinical Psychology



- With the onset of WWI, psychologists were pressed into service along with every other profession.
- Mental testing of new recruits developed at this time – Binet Intelligence Test (I.Q.)
- Mental/Psychological injuries from combat identified for the first time - “Shellshock”
- When WWII broke out, psychologists were again pressed into service to screen recruits for mental stress.
- After the war ended, these same workers found themselves treating those affected by the war mentally.
- A new branch of psychology would now focus on therapy and recovery – clinical psychology



Cognitive Psychology



- Cognition – the mental processes involved in acquiring knowledge.
- Renewed the belief that thinking was a physical experience and needed to be studied even though it was unobservable.
- Piaget – studied children's cognitive development
- Chomsky – studied language acquisition and cognitive roots.

Observing the unobservable



- Cognitive psychology gained influence when James Olds discovered that stimulating parts of the brain elicited sensations, memories, and emotions in patients.
- Roger Sperry – discovered that the right half and left half of the brain perform specialized functions.
- Begins the mapping of the brain.
- Cognitive processes can now be scientifically observed.

EXPERIENCE =

USABILITY/ANALYTIC + DESIGN/CREATIVE

Left-Brain Functions

Analytic thought

Logic

Language

Science and
math

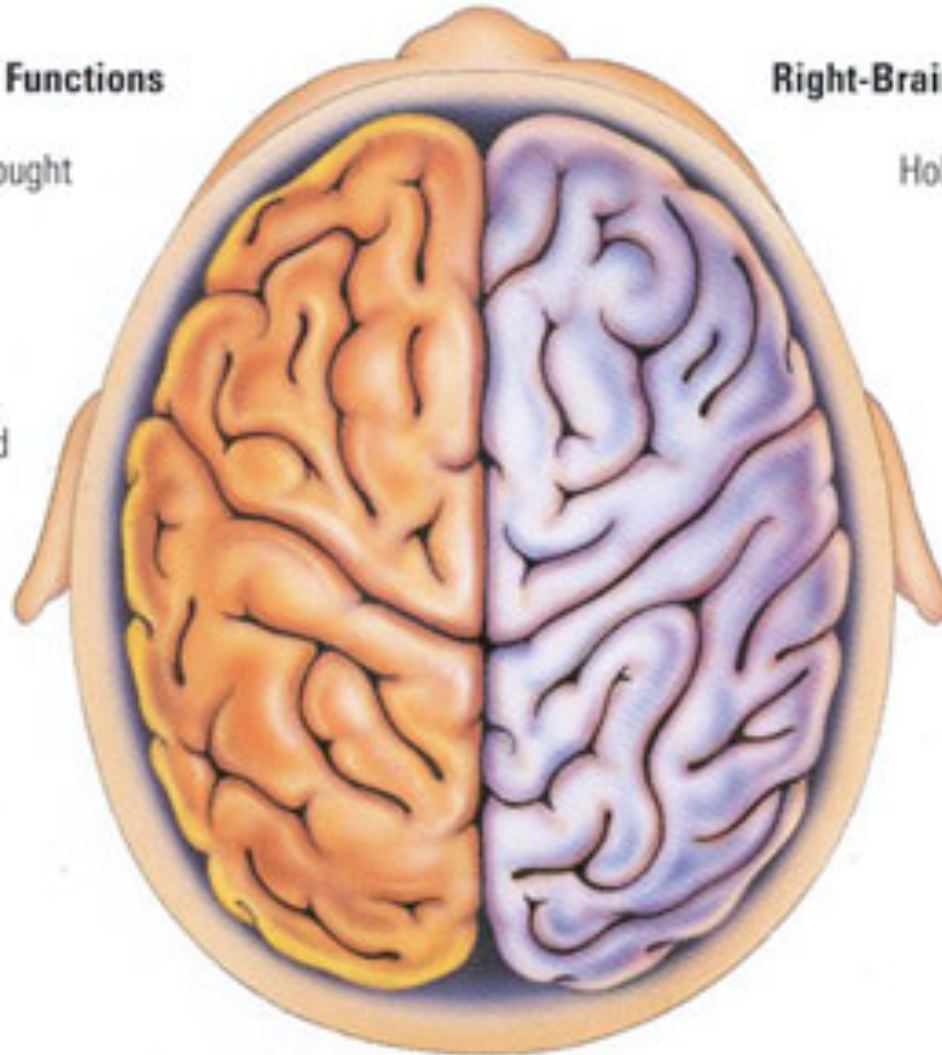
Right-Brain Functions

Holistic thought

Intuition

Creativity

Art and
music

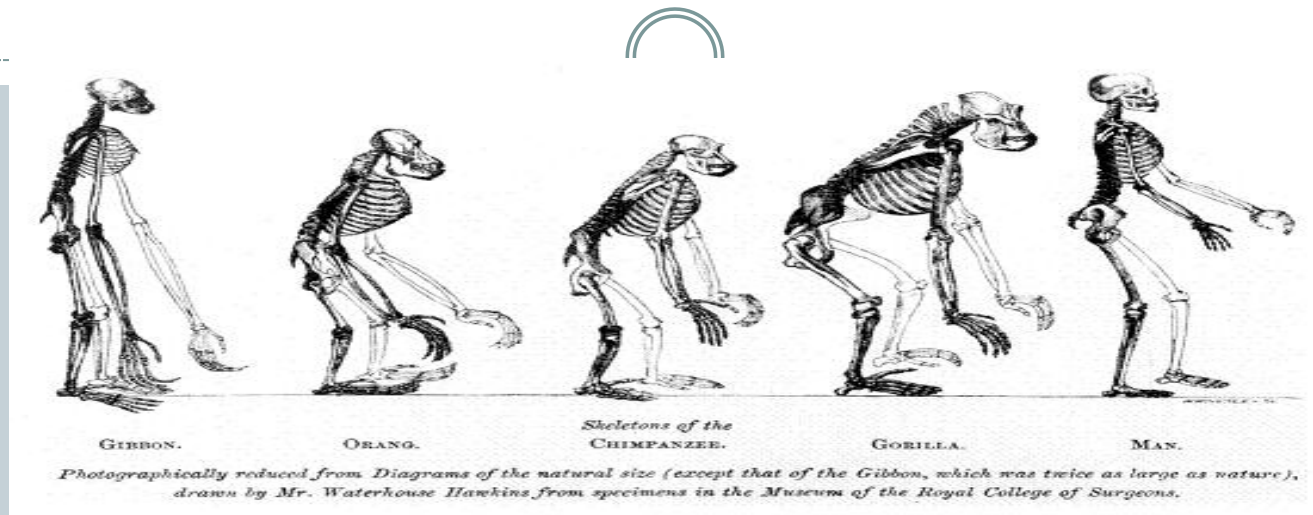


Biological Approach



- Advances in knowledge of how the brain works led to an increase in the research in the biological basis of human behaviour
- They believed that much of human behaviour can be explained in terms of the bodily structures and biochemical processes that allow organisms to behave.

Evolutionary Psychology



- Most recent development, pioneered by David Buss
- Examines behavioural processes in terms of their adaptive value for members of the species over the course of generations.
- Eg. Men are engineered to behave as hunters and women as gatherers. Therefore our visual-spatial organization would be different.

Twists & Turns

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- Object of study changed
 - Soul, mind, behaviour
- Focus changed
 - Structure, Function, Mental illness, Cognitive activity, Positive emotions etc.
- Methods changed
 - Introspection, Observation, Psychoanalysis etc.
- Confusion continues