

LECTURE 2- PSYCHOLOGICAL PERSPECTIVES

AIMS:

- The scientific approach to psychology
- A (brief) history of scientific psychology
- How psychology is taught
- Relationship between psychology and other disciplines
- Provide a framework for you to think about psychology
- Preview some of the topics and themes you will study in this course

DEFINITION:

PSYCHOLOGY is the scientific investigation of mental processes (thinking, remembering and feeling) and behaviour.

- *Behaviour*: overt (observable) actions; Physiological correlates of actions. We can measure them objectively through technologies such as EEG or fMRI
- *Mental processes*: “Thoughts” (memory, imagery, concepts); Emotions (fear, happiness, anger, arousal); and the interactions between the two (e.g. decision making)

GOALS OF SCIENTIFIC PSYCHOLOGY

- Description of behaviour using careful observations
- Prediction allows for specification of the conditions under which a behaviour will or will not occur.
- Explanation identifying the causes(s) of behaviour. Trying to use a range of different techniques to provide an explanation of how the brain processes information.
- Facilitating changes in behaviour (e.g. therapy – changing cognitions leading to changes in behaviour).

WHY SCIENTIFIC PSYCHOLOGY?

- *Aren't the answers to most psychological questions common sense?*
 - Clichés: Can be used post-hoc to explain most behaviours therefore our common sense is unfalsifiable. E.g. “Birds of a feather flock together,” or “Opposites attract”

Science vs. Common sense	
Objective data collection	Subjective data collection
Systematic observation	Hit or miss observation
Reliance on evidence	Ignores counterevidence

- When you get counterevidence – change and modify hypothesis
- A hypothesis is good if it is harder to prove “wrong” i.e. it is harder to falsify
- Carry out a proper scientific experiment so that you can justify the claims that you are making

Data linking neutral brain processes to real-world thinking is very hard to come by.

Psychology can reveal things about ourselves that we don't know.

- **Case Study 1:** What do you see when we look at a picture? You think you have a good image of the world, even though you don't.
 - Person Swaps
 - Noticing Changes in the world
 - Awareness Tests
- **Case Study 2:** Why did people willingly participate in the holocaust? What was it that caused this? Was it the fact that all people are inherently evil?

Milgram's Studies of Obedience to Authority

Blind obedience more likely to occur when people shift the responsibility for their actions onto someone or something else

- Got a volunteer and asked if they could play the role of a teacher in a learning experiment (paired learning associate)
- When the learner responded incorrectly – the teacher would need to administer an electric shock
- Change elements to find out what it was that made people deliver lethal shocks to strangers

Factors Affecting of Obedience to Authority

- Perceived authority of the person giving the orders e.g. man wearing a white coat
- Presence of a contradicting authority
- Proximity of the victim
- Level of direct responsibility for the outcome

ORIGINS OF PSYCHOLOGY

- Psychology emerged in part from philosophy. However, Psychology defined itself as an empirical science
- Early assumption that the goal of Psychology was to understand the structure and contents of the mind

First Scientific Psychologists: Introspection

- Metaphor of looking inwards to examine one's own conscious experience or "phenomenology"
- **Wilhelm Wundt** (Leipzig) trained observers to report on their experiences under different experimental conditions "Tell me everything that comes into your head when you look at this object"
- Introspection failed because people's self-reports were unreliable

FUNCTIONALISM

- **William James** emphasised the analysis of psychological processes in terms of their function. For example, attention serves to highlight and focus analysis on certain stimuli.
- Functionalism was consistent with evolutionary framework
- Functionalism focuses on identifying the rules or steps by which a particular task is achieved, not on the underlying mechanism
- The philosopher, **Jerry Fodor** has argued that the task could then be implemented on any information processing system, such as a computer or an alien's nervous system

- Similar to a software algorithm

BEHAVIOURISM

- One of the early challenges to introspection
- Behaviourist argue that subjective experience could not be verified by an objective observer
- Only the study of observable behaviour qualifies as scientific
- Highly successful approach
- Certain circumstances lead to certain behaviours

Two Variants:

1. Radical Behaviourism:

- Scientists Involved: **B. F. Skinner** and **John Watson**
- Only the study of observable behaviour qualified as scientific
- “Internal states” (thoughts, emotions) unobservable and therefore not part of scientific Psychology

2. Methodological Behaviourism:

- Scientist Involved: **Edward Tolman**
- Acceptable to study “internal states” (thoughts, emotions) as long as these can be linked to observable behaviours
- Still the approach that underlies much of the modern Cognitive Psychology and Associative Learning

PSYCHOANALYSIS

- Another challenge to introspection came from psychoanalysis
- **Freud** argued that many important psychological events are unconscious
- Although the details of Freud’s theory have not been supported, the idea that many psychological processes proceed without full conscious awareness is well established

PSYCHOLOGY AND THE BRAIN

- We know that psychological processes are depend on physical activity in the brain
- So, we could sidestep the study of behaviour and mental events, and focus instead on neurons and neurotransmitters?
- Several reasons why the answer is no, but most important is notion of levels of analysis

LEVELS OF ANALYSIS

- Political, economic patterns
- Group Behaviours
- Behaviour of individuals
- Neutral Events
- Molecular analysis
- Subatomic analysis

The appropriate level of analysis depends on the task. In psychology, the functional analysis of behaviour and mental processes is needed.

THE BRAIN...

- The better our functional understanding of the psychological process, the better we can identify neural mechanisms responsible for the various steps in that process
- Neuroscience is an importance aspect of psychology, but it doesn't replace it.

PSYCHOLOGY AS A NATURAL SCIENCE

- Empirical: based on systematic observation
- Experiments: manipulate one variable to observe effect on another
- Analysis: examine data to determine conclusions that can be drawn
- Theory: used to generate predictions and summarise existing knowledge
- Public: results are subject to review by others

PSYCHOLOGY INFORMS People about:

- Principles of behaviour that are supported by evidence
 - Our current understanding of the mechanisms underlying normal and dysfunctional behaviour
 - How to do research into behaviour and experience
 - Practical and effective methods for promoting desirable behaviour and reducing distress
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