

What is Psychology?

Psychology is the science of mental processes and behavior.

Is Psychology an EXACT science like chemistry or biology?

NO!!! - Why?

What are mental processes?

Mental processes are what your brain does, i.e., thinking, storing & retrieving memories, recognizing objects, people, sounds, and the use of language. It also includes what you feel such as depression or happiness.

How does your author define “behavior”?

It is the outwardly observable acts of an individual, either alone or in a group.

– What are some examples.....

– Are all behaviors preceded by mental processes? (No, but often are).

What would be some examples of behaviors that are not preceded by mental processes?

\* Reflex, pupillary response, breathing, startle response

\*\* BONUS Question: Which system in the body is responsible for involuntary movement/reactions? (Answer: Sympathetic Nervous System)

– Can behavior be mediated by relationships between individuals and groups? (Yes)

So, knowing these things, what are the goals of psychology in a general sense?

– To describe, explain, predict, and control mental processes and behavior.

Levels of Analysis in Psychology

Level 1: The brain >

Includes the activities of the brain such as concentration & attention as well as the structures & properties of the brain (i.e., pyramidal cell, ventricles, the thalamus, the amygdala, etc.)

Level 2: The person >

This is the person as a whole. It would include things such as beliefs, goals, aspirations, motivations, feelings.

It is also at this that the content of mental processes are considered.

Level 3: The Group>

At this level, psychology views people collectively. We look at the roles people play in the formation of the individual. We also look at the roles others play in the influencing of behavior.

This level exams relationships: i.e., love, competition, cooperation, etc. among individuals, groups, and cultures. It exams other factors such as the environment itself and how it can influence, shape, and determine behavior as well as personality.

## Evolution of Psychology

Structuralism: Wilhelm Wundt – considered the father of “scientific psychology”. Structuralism is considered to be the first formal movement in the history of psychology. It’s purpose was to identify the basic elements of human consciousness.

- A. The first element consisted of various sensations, i.e., seeing, hearing, touch, etc.
- B. The second element consisted of emotions, i.e., fear, anger, love, joy, contentment, etc.

The goal of Structuralism was to provide a description of how particular sensations &/or feelings combine to form specific mental structures.

– What was the primary method used by structuralists in their research?

Answer: introspection

- Attending to one’s own mental processes as they occur and immediately after they occur.
- What are some of the problems with “introspection”?
  - 1. No way to resolve disagreements about the nature of it because it cannot be verified.
  - 2. No way to reproduce the same results....

Functionalism: A direct reaction to structuralism. This particular school of thought sought understand how the human mind helps individuals to function throughout their day to day lives.

Contributions to modern psychology:

- 1. Observations that human psychology is related to the psychology of animals.... (Parapsychology)... (behavioralism).
- 2. Observations of animal behavior can provide information regarding human behavior.

Focus of Functionalism:

Primarily Societal Issues, i.e., improving the learning process (education).

Gestalt Psy.: Founded by Max Wertheimer

Strong support for the idea that the content of our thoughts comes from what we perceive and from our innate tendencies to structure what we see in specific ways.... This is the foundation for another approach in psychology called, “Constructivism” which holds that cognitive growth only occurs when we construct our own knowledge about the world around us. This is based on our interactions and perceptions with the world.

For 2 bonus points on your first exam...

Who is the father of Gestalt Therapy: Perls Fritz

## Psychodynamic Theory:

Founder: Sigmund Freud

- Emphasis:
- a) mental processes are outside of our conscious awareness and beyond your ability to bring such awareness at will.
  - b) because we suppress unwanted or undesirable urges, they eventually express themselves in as thoughts, feelings, and/or actions.
  - c) human behavior is motivated by sex and/or aggression.

Behaviorism: Emphasizes primarily on the idea the psychology should directly focus on observable behavior... NOT mental processes!

Purists of behaviorism believe that psychology should be completely removed from internal processes altogether (B.F. Skinner).

– Behaviorists believe that all responses produce consequences be it positive or negative. Such consequences have a direct effect on how the organism will respond whenever it encounters the same / similar stimulus (stimuli) in the future.

– All behavior can be explained in terms of an **S ➡ R** relationship.  
>> provide example(s)

Humanism: –Humanistic Psychology: Carl Rogers; Abraham Maslow

Emphasis:

1. People have positive values
2. People have free will
3. People are internally creative
4. People have a drive to “self-actualize”

Cog. Psy.: Specifically characterized by its emphasis on human information processing, i.e., how we acquire, store, and operate on it internally.

## Clinical / Counseling Psychology

Counseling Psychology: Basically, talking with and helping others to find resolutions to their problems.

Clinical Psychology: There are different areas of “clinical psychology”. For example, clinical neuropsychologists design and administer tests specifically intended to assess the effects of head trauma and its effect(s) on thought, feelings, and behavior. Some clinical psychologists function as counselors or specialize in specific areas such as eating disorders, personality disorders, or treating self-destructive behaviors.

Academic Psychology: Focuses primarily on research and teaching in the field of psychology. These individuals can also specialize in very specific areas such as neuroscience, developmental psychology, social psychology, or clinical psychology.

Applied Psychology: Focuses on how to improve products and/or procedures. They also conduct research in order to help solve specific practical problems (education, industry, marketing). Individuals in this area can be Social Psychologist, Educational Psychologists, Neuropsychologists, and/or Personality Psychologists.

## Lecture 03

### Chapter 02 Research Methods and Design

#### Scientific Method

##### Steps of the Scientific Method:

1. Involves specifying a specific problem(s),
2. systematically observing events,
3. forming a hypothesis regarding the relationship between the variables,
4. collecting new observations in order to test the hypothesis,
5. using the evidence to formulate & support a theory,
6. testing the theory.

#### Research Designs:

##### Aspects of Experimental design:

- A. Data: Observations and/or numerical measurements.
- B. Hypothesis: A tentative explanation of a set of observations.
- C. Replication: To repeat a study with the exact same parameters and obtain the same results which were previously found. Used to estimate the underlying experimental error; Used to obtain a more precise estimate of the mean effect of any factor or factor combination; Used to increase the range of the experiment if treatment effects are found to be consistent over all experimental units that they are applied to, hence, they acquire much broader inferential conclusions.
- D. Variable: Any aspect of a situation that can vary or change.
- E. Independent Variable: The variable that is manipulated in a research design. (Pg. 28)
- F. Dependent Variable: The variable used to measure the independent variable. (Pg. 28)
- G. Theory: A statement of a set of underlying principles that are intended to explain a set of observations.
- H. Prediction: Expectations about specific events that should occur under given circumstances if a theory or hypothesis is correct.
- I. Randomization: The assignment of treatments to experimental units, i.e., control versus experimental groups; multiple experimental groups. Used to control and reduce bias in variables; Supports critical assumptions made at the analysis stage of an experiment.

##### Quasi-experimental design:

Quasi-experimental designs lack some aspect of randomization. For example, it may lack randomization in the selection of subjects or the placement of subjects in group assignment. This has an impact on how generalizable the results will be.

\*\*\*\* As a general rule of thumb in designing an experiment... Where ever possible, randomize!!!

Correlational Research:

Designs that specifically assess relationships between two or more variables.  
– See page 30.

Naturalistic Observation:

This is considered to be a “non-experimental” design.  
This type of research consists of “unobtrusive” observations of subjects’ naturally occurring behavior.

Ethnography:

The researcher becomes immersed in the behavioral or social system being studied and may be considered as a participant or non-participant observation study.

Case Study:

This is when you observe and report in detail on a very specific single case.

Archival Research:

This is when you use existing records such as police records, school records, medical records, etc. as your data source. (Example: meta-analysis – allows researchers to combine data from multiple different studies on the same topic)

Content Analysis:

This is when you analyze spoken or written records for the occurrence of specific categories of events such as a word or phrase. Both RECORDING and CONTEXT UNITS are evaluated. The most common statistical program used to analyze this kind of data is called, “Nudist”.

**\*\* Reliability & Validity**