Sept. 13, 2013

PSYC1001G: Week One

CHAPTER ONE: EVOLUTION OF PSYCHOLOGY

Definition

psyche = soul; *logos* = study of a subject

Psychology: the science that studies behaviour and the physiological and cognitive processes that underlie it, and it is the profession that applies the accumulated knowledge of this science to practical problems. (from textbook)

Roots

Psychology's two roots are:

1. **Philosophy**, and
2. **Physiology**

Philosophy: the study of fundamental issues using *rational argument*

- ex. conflicting ideas of *monism* (mind and body as one whole) vs. *dualism* (mind and body as separate entities) in psychology

Physiology: the scientific study of living systems

- ex. measuring the speed of nerve impulses

Wilhelm Wundt

- the "father of psychology"
- founded the first psychology laboratory in Leipzig, Germany (1879)
- applied **introspection** to his psychological practices

Introspection: the careful, systematic self-observation of one's own conscious experience (an example of **structuralism**)

Structuralism vs. Functionalism

Structuralism: the notion that the task of psychology is to *analyze* consciousness into its basic elements and *investigate* how these elements are *related*

Advocate: **Edward Titchener**

Functionalism: the belief that psychology should investigate the *function* or

purpose of consciousness, rather than its structure
Advocate: **William James**

Behaviourism

Behaviourism: based on the premise that scientific psychology should study *only observable behaviour*
Advocates**: John B. Watson** and **B.F. Skinner**

Psychoanalysis

Psychoanalytic Theory: attempts to explain *personality*, *motivation*, and *mental disorders* by focusing on *unconscious determinants of behaviour*
Advocate: **Sigmund Freud**

Additional Competing Theories

Humanistic: *unique* aspects of human experience (you have the ability to change)

Cognitive: *thoughts*; mental *processes* (different stages of development, e.g. transition from adolescence to adulthood)

Biological: psychological *basis* of behaviour in humans and animals

Evolutionary: *adaptive* rule of behaviour

Positive: *adaptive*, *creative*, and *fulfilling* aspects of human existence

** see chart on *page 12* of textbook for more information

CHAPTER TWO: RESEARCH ENTERPRISE IN PSYCHOLOGY

Theory: a system of interrelated *ideas* used to *explain* a set of *observations*

Goals of Science

- Measurement and Description
- Understanding and Prediction
- Application and Control

Five Steps to a Scientific Investigation

1. Formulate a testable hypothesis
2. Select the research method and design the study
3. Collect the data
4. Analyze the date and draw conclusion
5. Report the findings

Formulate a Testable Hypothesis

Hypothesis: a tentative statement (educated guess) about the relationship between two or more variables

Variable: any *measurable* conditions, events, characteristics, or behaviours that are *controlled* or *observed* in a study

- **Independent Variable**: a condition or event that an experimenter varies in order to see its impact on another variable
- **Dependant Variable**: the variable that is thought to be affected by manipulation of the independent variable

EXAMPLE: How far will humans go when an authority figure orders them to hurt another human being?

- Poor Hypothesis: Humans will hurt others when told to do so by authority.
- Better Hypothesis: Middle-aged men will apply more volts of electric shock to a non-visible person when asked to do so by a man in a white lab coat as opposed to a man in plain clothes.

Select the Research Method and Design the Study

Three Research Methods:

1. **Experimental**
2. **Correlational**
3. **Descriptive**

Experimental Method
Variables in above hypothesis: humans; hurt; authority; temperature in room; time of day; mood of participant; tone of authority figure

We must attempt to recognize, categorize and control *any* variables in the experiment.

Independent Variables (manipulated/controlled by researchers): Man in white lab coat or man in plain clothes

Dependant Variables (thing that is measured): amount of volts

What needs to be controlled/randomly assigned?

Extraneous Variable: any variable other than the independent variable that seems likely to influence the dependant variable in a specific way
Confounding Variable: occurs when two variables are linked together in a way that makes it difficult to sort out their specific effects

Limitations

- lacks ecological validity (i.e. extremely controlled situations are not like real life; most likely, would not encounter a situation where you need to shock someone)
- not suitable for some research questions (i.e. some experiments could be morally wrong)

<u>NEXT WEEK</u>

- Research Methods
    - Data collection & analysis
    - Reporting findings
- Introduction to the Brain