

Psychology:

- the systematic, scientific* study of behaviors & mental processes
- makes use of the scientific method
- empirical - relies on research findings to answer questions and draw conclusions
- ***Uses the same careful, systematic, unbiased gathering of data & testing of hypotheses as other sciences**

Psychology studies:

- both normal & abnormal behavior
- both humans & other species
- all aspects of behavior

Knowing Something About Professionals in the Field

Or “ What qualifies her/him to give me advice?”

How many of you already know a psychologist or related professional?

Becoming a Psychologist:

- Earn the Ph.D.(4-5 years grad work + a major research project called your *dissertation*) OR
- A smaller number earn the Psy.D. (less emphasis on research, more on therapy) or Ed.D. (psych applied to Education)
- All psychologists specialize (approach & research area) as they earn their degrees
- *Clinical* psychologists also need 1 yr. internship & must pass licensing exam

See pages 17-19

Research areas or specializations (learn about these **on your own** in module 1,Part G):

- Social psych
- Developmental psych
- Experimental (basic processes*) psych
- Biological psych
- Cognitive psych
- Psychometrics (psych testing)
- Clinical psych/counseling psych
- Industrial/organizational (work) psych

*Sensation, perception, motivation, learning/memory, emotion

Some of the areas in psych

- Social psych
- Personality psych
- Developmental psych
- Experimental (basic processes) psych
- Biological psych
- Cognitive psych
- Psychometrics (psych testing)
- Clinical psych
- Industrial/organizational psych

Psst...

At least 2-3 test questions will ask about these research areas (see p. 18-19)

Different Approaches to Understanding Behavior

(also study these on your own- Mod 1 Part B)

- Biological
- Cognitive
- Behavioral
- Psychoanalytic
- Humanistic
- Sociocultural
- Evolutionary
- Biopsychosocial

Different Approaches/Perspectives

- Biological
- Cognitive
- Behavioral
- Psychoanalytic
- Humanistic
- Sociocultural
- Evolutionary
- Biopsychosocial

Psst...

Yep, you guessed it - a couple test questions will be on the modern approaches (Part B of Module 1)

Other Degree Options:

- M.A. in Psych or Counseling or Social Work (takes ~2 years; more limited job opportunities)
- To become a *psychiatrist* you first earn your M.D., then specialize in clinical psych
- A *psychoanalyst* is a psychologist or psychiatrist with special training in Freud's approach to revealing the unconscious
- A large variety of psychology-related jobs are available to those with a B.A. in Psych, as well as jobs where insight into behavior is a plus (sales, management, marketing, education, criminal justice, service jobs)

Where do the ~190,000 U.S. psychologists work?
(see p. 17)

- about 49% in clinical/counseling settings
- about 28% at colleges/universities
- about 6% in business, industry settings
- about 4% in K-12 school settings
- about 13% miscellaneous other settings (government, courts & law enforcement, marketing/advertising/PR, consulting, research institutes, etc.)

TIP:

- On average, there will be 7-8 questions on the content related to each class period on our exams.
- Right now, while class is fresh in your mind, try to guess what 7-8 things we will have questions on. Write them in the margin next to today's notes.

- Your studying will be more effective if you ORGANIZE the information you need to know rather than just studying a list of facts and definitions.
- One way of ORGANIZING is to create a diagram or CONCEPT MAP of what you need to know.
- I created one related to last class period:

Goals of Psychological Research

- Describe the behavior
- Predict the behavior in the future
- Explain the behavior
- Control or modify behaviors

Example: Psychologists interested in autism have worked on all 4 of these goals.

Autism Spectrum Disorder

up to 1 in every 110 kids

Identifiable by age of 2-3
Varying degrees of severity*



Goal: Describing Autism Spectrum Disorder (DSM 5)



- Impaired social communication & social interactions
 - Deficits in the social back & forth of conversations
 - Decreased initiation of social interactions
 - Decreased nonverbal communication & attention to nonverbal cues
 - Decreased ability to develop, maintain or understand social relationships
- Restricted, repetitive pattern of behavior, activities & interests
- Insistence on sameness, routines
- Abnormal response to changes in environment
- Symptoms appear early & cause serious impairment

AUTISM

Persons with autism may present the following characteristics in various combinations and in varying degrees of severity:

FYI – if you want to know More about autism, this is linked to the syllabus

1-800-3AUTISM
Autism Society of America
7910 Woodmont Avenue, Suite 600 Bethesda, MD 20814-2018
January is National Autism Awareness Month.

Goal: Prediction

- **Predicting** who is at risk:
 - 3-4x as many males with autism
 - Couples with 1 autistic child are 50-100X more at risk of having another with autism
- **Predicting** when symptoms may worsen:
 - when there is sensory overload
 - when usual ways of doing things are disturbed

Goal: Control

- **Controlling** the symptoms of autism by avoiding certain situations or stimuli.
- Decreasing the risk of autism thru genetic counseling (perhaps eventually a genetic test may be possible) & good prenatal care

Goal: Explanation

- Explanations in science are rarely final or complete.
- They are usually in the form of a **theory** that seems to fit the existing data.
- As new evidence becomes available, the theory (explanation) may be supported or may have to be revised.

Biological Approach:
What's Different in Brain?



- Brain area usually active when we look at others (fusiform gyrus (pink)) is not active in autistics. Instead the "animate object" area is active
- Less activity in neurons that seem to be associated with empathy & understanding what others are experiencing ("mirror neurons")
- There are several brain anatomy differences as well as neurotransmitter differences

Autistic Savants or Savant Syndrome

- About 1 in 10 individuals with autism possess exceptional ability in some area (may be artistic, musical, memory, or communication) despite the impairments in other aspects of their lives.
- Occasionally Savant Syndrome occurs in individuals who are not autistic, but who suffered brain injury, brain deterioration, or mental retardation.
- You may have hidden savant abilities!

Goal: Explanation of Autism

Early theory: Cold, rejecting parenting caused autism - NOT supported as more studies were conducted.

A more recent theory: Autism is caused by vaccinations – turned out this was an elaborate fraud based on falsified data.

More recent theory: Autism is biologically based (abnormal prenatal brain development which may have a genetic basis in most)

Multiple genes involved; if an identical twin is autistic usually the other twin is also.

Cognitive Approach

- Autistic individuals differ widely in their cognitive processes:
- Some are severely retarded with no language abilities ("low functioning")
- Some have relatively fluent speech but don't function well in academic and social situations ("high functioning")
- Most of us use the left side of the brain to understand language and produce speech, but the right side is active in those with autism.

Behavioral Approach

- Focuses on observable behaviors in autism and how to increase desirable behaviors and decrease undesirable behaviors (examples of the "control or modify behavior goal")
- <https://www.youtube.com/watch?v=NbVG8lYEsNs>