

# Introduction to Psychology

Based on *Psychology* by David Myers

## Thinking Critically With Psychological Science

Many people wonder about the effects of television on frequent viewers. It's time to take the role of psychologist-in-training and tackle this question seriously using rigorous methods of science. Following the guidelines of Chapter 1 in the book, devise two studies for investigating the relationship between television viewing and violent behavior.

One study should use a method of description (be sure to identify which one) to gather data and should then investigate a statistical correlation between observed variables. Note that in order to investigate correlations, your study should provide a way to quantify the variables between which you may search for correlations.

The other study should use an experiment (consisting of independent variables, dependent variables, a method for organizing the data, and a choice of a measure of central tendency to summarize the data) to answer the question; be sure to consider whether your experiment could possibly result in a skewed distribution.

Finally, discuss the high-level differences between a study based on description and a study based on experimentation. Make sure that you show a knowledge of all aspects of study design by defining key terms.

## Neuroscience and Behavior

1. You've studied the link between television viewing and violence. Now let's take it a step further. No longer are you a psychologist-in-training; you're now a neurologist, and you have a rather perplexing case. A friend informed you by way of e-mail that she has no sensation of touch in her left hand. Further, she claimed she couldn't speak normally. Unfortunately, this is all the information she provided. Using your now extensive knowledge of how the various components of the brain control sensation and speech production, which components of the brain are likely involved in these two dysfunctions and why? Don't be afraid to give this a bit of thought and get specific.
2. Explain the importance of the cerebral cortex in the functioning of the brain. Further, identify the lobes of the cerebral cortex along with their broad functions.

## Developing Through the Life Span

Discuss Erik Erikson's stages of psychosocial development. Explore the issues that a person at each stage faces according to Erikson.

## **Sensation**

Suppose you are looking at a ball. A rich chain of events starts within your eyes. Explain the details of this chain of events, identify each of its components and the roles they play, and finally say which components of light contribute to which components of color. Demonstrate a knowledge of the entire process by providing definitions for key terms.

## **Perception**

Early in the twentieth century, a group of German Gestalt psychologists became intrigued with how the mind organizes sensations into perceptions. Explain their results (including all modern extensions of their results) in detail, identifying key terms to demonstrate an extensive knowledge of the subject matter.

(Hint: Your response should cover much more than the rules of grouping!)

## **States of Consciousness**

Discuss in detail the characteristics of REM sleep. Identify both the neurological and physiological effects caused by REM sleep. Describe the stages of the sleep cycle that occur before REM sleep. What distinguishes REM sleep from other sleep stages?

## **Learning**

1. Discuss reinforcement. What type of conditioning is it? Who formulated it? Explain clearly the difference between positive and negative reinforcement.
2. Identify and describe the two major reinforcement schedules in operant conditioning. Then describe the four schedules of partial reinforcement devised by Skinner and his collaborators. Which schedule yields the most consistent response?
3. Discuss the five conditioning processes identified by Pavlov and his associates.

## **Memory**

Our brains' memory systems distinguish between two fundamentally different types of memory records—short-term and long-term records. Compare and contrast these types of memory records on such factors as capacity and duration. Additionally, contrast the two types of sensory memory.

## **Thinking and Language**

Discuss and distinguish between the two primary methods of thinking about problems: algorithms and heuristics. Then, suppose that you are going grocery shopping and that you are looking for guava juice. Give examples of both an algorithm and a heuristic procedure that you could use to search for guava juice.

## **Intelligence**

There is significant controversy surrounding the analysis and definition of intelligence. Several leading psychologists over the years have proposed radically unique theories of intelligence. Write an essay in which you explore the definition of intelligence, along with major theories of intelligence (including general intelligence, the triarchic theory, and Gardner's multiple intelligences).

## **Motivation and Work**

Identify the levels of Maslow's hierarchy of needs. What does this predict about behavior following disasters or severe economic hardship?

## **Personality**

Discuss Freud's theory of personality structure and its development through a series of psychosexual stages. Be sure to discuss all aspects of the theory, defining key terms along the way.

## **Psychological Disorders**

Describe the symptoms and subtypes of schizophrenia. Be sure to include and define the terms hallucination, delusion and flat affect in the proper context. What is the role of dopamine in this disorder?

## **Therapy**

Discuss the five most influential forms of psychotherapy, citing important examples of each. What are some common techniques used in each therapy?

## **Social Psychology**

Consider this situation: A group of troubled, misbehaving high school students is assembled to meet twice weekly after school with the goal of improving the students' behavior. A school counselor is assigned to lead the group. Initially, the students exhibit clear opposition to this aim; they do not work together and laugh at the entire proposition.

Using what you know about the relationship between attitude and action, propose a strategy the group leader could use to improve their attitudes and accomplish the group's stated goal.

Be sure to include a description of key terms like attitude, foot-in-the-door phenomenon, role-playing and cognitive-dissonance.

## **Emotions, Stress & Health**

1. Describe the dual-track system by which our body responds to stress.
2. Identify and describe the three phases of the general adaptation syndrome.