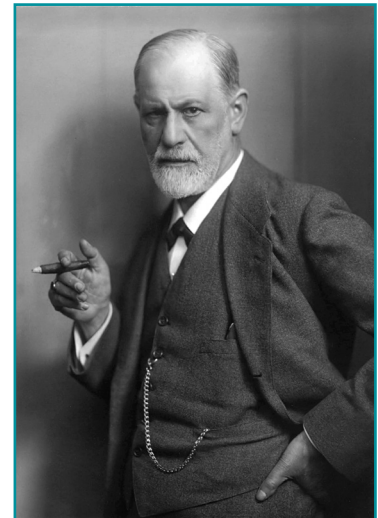


SCIENTIFIC FOUNDATIONS OF PSYCHOLOGY

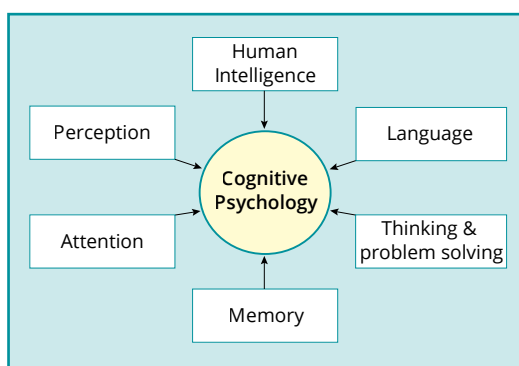
There are two key questions that this unit strives to answer. First, how does the methodology of a research study affect the results? And, how do ethical guidelines impact psychological research?

Pursuing the answer to these questions involves recognizing how **philosophy** and **physiology** shaped the development of **psychological** thought. A subsequent key element of the origin of psychology comes from the research contributions of major historical figures in the field. Remember that the AP® Psychology Exam can test you on as many as 56 different historical figures, such as Sigmund Freud, B.F. Skinner, and William James. Be careful, and do not limit your exam preparation to only the most recognizable names; lesser known figures have appeared within the multiple-choice as well as the free-response questions. There are 15 learning targets within Unit 1.



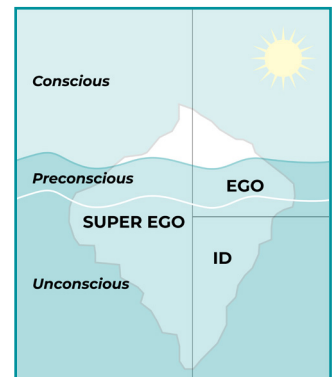
Sigmund Freud

Recognize how philosophical and physiological perspectives shaped the development of psychological thought. There are seven **primary** domains in the foundation of psychology: **Biological, Psychodynamic, Evolutionary, Behavioral, Cognitive, Humanistic,** and



Sociocultural. Each of these domains have a unique theoretical approach, explain behavior differently, have strengths and limitations, and corresponding researchers that contributed to their investigation. Within these theories, researchers have integrated their phraseology, which has built the vast vocabulary within the field of psychology. A powerful tool is to chart each with major researchers, components, and findings.

Consider chart diagraming, or illustrating, the key components of each of the seven domains investigated throughout the AP® Psychology course. Be very cautious of simply using definitions within free-response questions. These types of diagrams will help you better recall the factors within the concept or terminology.



RESEARCH METHODS IN PSYCHOLOGY

Differentiate the types of research, always keeping in mind the purpose, strengths, and weaknesses of each, similarly to comparing the various domains at the beginning of the unit.

Be conscientious of how the field of psychology values the reliability of operational definitions and research methods utilized in behavioral research. Explore the challenges of applying theories to explain behavior. For example, in the Stanford Prison experiment, there were fewer guidelines and restrictions in regard to mental health research. Consider how this study would be conducted today.

STATISTICAL ANALYSIS IN PSYCHOLOGY

Be prepared to apply basic descriptive statistical concepts in order to analyze results of psychological studies. This will also include constructing and interpreting graphs, and implementing them through calculating basic descriptive statistics. Essentially, once data is constructed into a graph, be prepared to accurately interpret the data portrayed.

KEY VOCABULARY CONCEPTS WITHIN AP® PSYCHOLOGY UNIT 1

Correlational coefficient	Naturalistic observation
Correlation	Variable
Scatterplot	Double-blind procedure
Independent variable	Dependent variable
Confounding variable	Validity
Histogram	Informed consent
Standard deviation	Inferential statistics
Placebo	Theory

Researchers in various fields utilize a variety of statistical analyses. The field of psychology typically relies upon descriptive and inferential statistics. Review the procedures for both, as well as compare and contrast their purposes. This will help you distinguish which is more appropriate for the data presented. For example, how would you construct your statistical data for a survey, as opposed to a double-blind study? Reviewing the comparison of common data analysis procedures in the field of psychology will help you answer these questions accurately.

THE EXPERIMENTAL METHOD

While many have utilized the experimental method throughout our learning endeavors, we often disregard the terminology involved. The following are some key elements to remain mindful of as your review for the AP® Psychology Exam progresses.

- Know the various types of research methods (data collection strategies). Which is most reliable for which type of investigation?
- Regardless of the research, be prepared to explain variables: independent, dependent, confounding and control in the experimental designs.
- How could design choice influence reasonable conclusions?
- Distinguish between random assignment of participants to conditions in experiments and random selection of participants. Random selection involves selecting members of a particular population for a sample, then employing random assignment to sort that sample into groups. These distinctions are typically utilized in correlational studies and surveys.
- There are a multitude of research designs, because each can be designed to assess the variables under investigation. Be prepared to predict the validity of explanations of behavior based on the quality of a research design.



SCIENTIFIC FOUNDATIONS OF PSYCHOLOGY

ETHICAL GUIDELINES IN PSYCHOLOGY

As you review the theorists, and the various early research studies forming the basis of our current field of Psychology, consider which may be allowed to be precisely replicated in our modern era. Some of these early studies are precisely why we have ethical research guidelines in place today. Review how ethical issues can both **inform** and **constrain** research practices. Would Stanley Milgram have been able to insist that participants continue to “shock” the individual in the next room in our current era? Should modern researchers precisely replicate John B. Watson’s Little Albert experiment? Conducting research ethically helps to provide reliable and reproducible information through future studies, but it also can constrain research practices and thereby impact results. These constraints are in place to protect participants and make results more reliable. The aim of research is to help rather than harm. Make sure you identify how ethical and legal guidelines protect research and participants in an effort to promote sound ethical practice.

“Science brings society to the next level; ethics keep us there.”
 —Dr. Hal Simeroth



NOTES

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