## Questions to think about:

- 1. How did industrialization influence the progress of science?
- 2. How did religion influence the development of psychology?
- 3. What is romanticism? Why did this movement start?
- 4. Explain the two movements that resulted from religious doubt. (Hint: mesmerism and spiritualism.)
- 5. Explain Comte's 3 stages of human history. How do they relate to Kahne's scientific paradigm shifts?
- 6. How did Gall challenge the empiricism and associationism of his time?
- 7. Explain why phrenology was "the first objective psychology" according to Leahey.
- 8. Compare British, French, and German mental testing. How did mental testing impact the world?
- 9. Why was Emil Kraepelin influential (and what made him different from other practitioners of his time)?

## Recall that the question for this chapter from our second quiz:

"The 19th Century is important in the development of psychology as a science because a number of experimental methods were developed that stimulated investigation the brain and nervous system, how the perceptual systems worked, and even aspects of what we could call cognition or intelligence. Describe two of these methods."

## Glossary

- Industrial Revolution
  - From the 18th to the 19th century, advances in technology, science, agriculture, manufacturing and many other fields profoundly accelerated socioeconomic growth and development in Europe and North America. During this time, the population doubled and the size of government quadrupled.
- Romanticism
  - A reaction against the aristocratic social and political norms and the scientific rationalization of nature that occurred in the Age of Enlightenment. Proponents of the romanticism movement emphasized expression of emotion and free will.
- The Enlightenment
  - A cultural movement of intellectuals beginning in late 17th-century Western Europe emphasizing reason and individualism rather than tradition. Its purpose was to reform society using reason, to challenge ideas grounded in tradition and faith, and to advance knowledge through the scientific method. It promoted scientific thought, skepticism, and intellectual interchange.
- Associationism
  - Associationism is a psychological theory asserting that the foundation of meaning, thought, and learning is the simple association or co-occurrence of ideas.
- Utilitarianism
  - A moral or ethical belief system in which "ethical" actions are whichever actions that result in the greatest benefit to the individuals implicated in the action.
- Positivism
  - The theory that knowledge is based on natural phenomena and their properties and relations as verified by the empirical sciences
- Comte's 3 stages of history (Theological, Metaphysical, Scientific)
  - Theological: People explained phenomena through religious and supernatural entities
  - Metaphysical: Phenomena still explained by the unseen without considering them divine.
  - Scientific: Phenomena based on scientific explanation based on observation, experiment, and comparison.
- Logical positivism
  - A philosophical movement holding that all meaningful statements are either analytic or conclusively verifiable or at least confirmable by observation and experiment and that metaphysical theories are therefore strictly meaningless
- Radical behaviourism
  - school of thought pioneered by B.F. Skinner that argues that behavior, rather than mental states, should be the focus of study in psychology

- Mesmerism/animal magnetism/hypnotism
  - Mesmerism was believed to be the control of one individual over another due to the passing of invisible bodily fluids (animal magnetism). This could cause people to say and do things that they were unaware of and would not otherwise do. It was later termed hypnotism once people uncovered that it was actually caused by an individuals suggestible psychological state of mind.
- Psychical research
  - Research conducted in attempts to find evidence of the soul, mainly by Myers and Sidgwick who founded the society of psychical research in 1882.
- Phrenology
  - A psychological theory proposed by Franz Joseph Gall in which a person's mental strengths and weaknesses were correlated with bumps and dents in the skull, respectively. These bumps and dents occur because a person's exercise of a given faculty results in that mental faculty developing more, becoming bigger.
- Reflex theory
  - Elaborates on the theory of consciousness that states that the brain connects stimuli and responses, and the the mind connected ideas. Reflex theory states that the mind and brain are connected themselves.
- Mental chronometry
  - The scientific study of cognitive processing speed.
- Compound reaction
  - Reaction time in a situation which there are two or more possible stimuli that require different responses.
- Mental testing
  - Any standardized procedure for measuring sensitivity or memory orintelligence or aptitude or personality
- Gaulton's "g" factor
  - A single psychometric factor pertaining to intelligence.
- Intelligence Quotient (IQ)
  - The ratio of mental age/chronological age x 100, calculated to provide a baseline comparison for intelligence across ages. IQ tests examine a person's reasoning ability (measured using problem-solving tests) as compared to the statistical norm or average for their age, taken as 100
- Asylum
  - An antiquated institution used to institutionalize those suffering from mental illness. Though a period of reformation swept through asylums in the 19th century, historically asylums were known for the poor treatment of their patients.
- Psychiatry (Biological and Romantic)
  - Psychiatry is the study and treatment of mental illness. In the 19th century, prominent psychiatrists followed one of two approaches. Biological psychiatry focused on treatment of psychological symptoms with physiological treatments, and biological psychiatrists believed that mental illness was caused by problems with the brain. Romantic psychiatrists believed that the problem was rooted in patient's history and life circumstances, and treatment consisted of counselling.
- Moral therapy
  - A then-revolutionary approach to the treatment of mental illness that was championed in the late 18th century, but resource requirements due to population growth in the 19th century made this technique all but disappear. Moral therapy consisted of building highly routinized regimens for patients suffering from mental illness, and the belief was that by living carefully structured lives, patients will be able to restore their lost sanity.
- Neurology (19th century)
  - In the 19th century, neurologists treated "mild" mental illnesses (the neuroses) in highly relaxing environments, similar to a spa. Neurologists also consulted with patients in private offices.
- Psychotherapy

- Later in the 19th century, psychiatric and neurological treatment coalesced into psychotherapy, an approach that placed emphasis on simply talking patients through their treatments.
- Subject
  - $\circ~$  A person who is the focus of scientific or medical attention or experiment.