

History of Psychology
Test on Chapters 1, 2, and 3

1. What are the academic disciplines that psychology was built upon?

The academic discipline that psychology was built upon was primarily philosophy. Speculation on human nature originated from the fifth century B.C. with philosophers such as Plato and Aristotle.

2. Define the term *Zeitgeist* **and** name three factors that are part of it.

The word *Zeitgeist* is a word that refers to the intellectual and cultural climate or spirit of the times. The factors that affect it include jobs, wars, and prejudice and discrimination.

3. Define *determinism* and *empiricism*.

Determinism refers to the doctrine that acts are preserved by past events. Empiricism refers to the doctrine that explains phenomena on one level (complex ideas) in terms of phenomena on another level (simple ideas)

4. What are the differences between John Locke and Rene Descartes in terms of how they believed humans gained knowledge?

John Locke believed that humans gained knowledge not through innate ideas like Descartes proposed but instead he believed that humans gained knowledge through experiences. Locke believed that the mind was a clean slate and was completely empty at birth. Locke believed there were two ways humans can find experience which was through sensation and reflection. Descartes, in contrast, created this doctrine of ideas that differed from Locke. He believed in derived ideas and innate ideas. Derived ideas originated from an external stimulus and innate ideas are ideas that arise from one's inner consciousness outside of any external stimulus (which Locke would have disagreed with).

5. Define the *Spirit of Mechanism* **and** explain why it was important.

The Spirit of Mechanism refers to the idea or spirit that the universe is seen as this great mechanism or machine. The ideology defines natural processes as mechanically determined and can be understood through different disciplines such as mathematics or physics. The universe was perceived to move in an orderly fashion, akin to a clock. It was significant due to how it influenced scholars and scientists by helping them add numerical values to their data. This helped in the development and use of certain numerical tools such as a barometer and thermometer which can help find numerical data. It was significant since it helped astronomers and navigators accurately record the movement of celestial objects and helped with navigation on the open sea

6. What was unique about the way that James Mill viewed the human mind **and** what was his goal?

James Mill's approach to the functionality of the human mind was unique in the way that he viewed the human mind mechanistically. He applied the concept of mechanism towards the human mind. His goal was to destroy the illusion of all subjective or mental activities and to demonstrate that the mind was nothing more than a machine. His perspective was very direct in this perspective, basically believing that we are nothing more than mere biological entities/mechanisms. He also believed that the mind had no creative function since association is a passive process.

7. What was the significance of David Kinnebrook's mistake?

David Kinnebrook's mistake was significant because Kinebrook's measurement mistake led to another astronomer, Friedrich Wilhelm Bessel, to develop the phenomenon of the "personal equation". This theory/phenomenon referred to personal/uncontrollable differences in observation time. This is significant because Bessel's work helped illustrate the subjective nature of which human nature possessed. One can see how there is never an exact correlation between the exact nature of an object or occurrence and an individual's perception over it. From here, scientists began to study human sense organs more in depth which thus led into a deeper study of psychology.

8. Why were the early developments in physiology important to the field of psychology?

The developments of physiology were important since German Physiologist Johannes Muller helped advocate for the use of experimental methods. His most famous publication, "Handbook of the Physiology of Mankind", helped summarize a plethora of physiological research. He was also famous for his theory of the specific energies of nerves. Physiology was also important for psychology since it helped with the development of different brain mapping techniques such as extirpation, the clinical method, and so on.

9. What was extirpation and of what value was it to psychology at that time?

Extirpation was a method of brain mapping where certain parts of the brain would be destroyed and taken apart in order to understand and find its function. It was valuable to psychology since through the work of Franz Josef Gall, he was able to utilize this method and other inner brain mapping techniques that it was possible to localize specific brain parts and functions.

10. Why did so many of the early developments in psychology happen in Germany?

The reason why there were so many early developments in psychology in Germany was because of the German approach to science and the reform movement in German universities. German scientists viewed science very broadly in contrast to England and France. Germany was not as limited to their inclusion of such sciences such as psychology whereas France and England were more hesitant to accept psychology, a science that attempted to understand the human mind. The reform in German universities also contributed to experimental psychology. Professors had more freedom in what they were able to teach to students. There were also more opportunities for students to learn since the laboratories were filled with a plethora of equipment. There were also

more jobs with research positions in Germany in comparison to other countries. In turn, it helped promote research in the field of experimental psychology.

11. What was Hermann Helmholtz's major contribution to psychology?

Herman Helmholtz major contribution to the field of psychology was discoveries of the speed of the neural impulse as well as his research on vision and hearing. Helmholtz as well gave us the first empirical measurement of the rate of conduction where he stimulated a motor nerve and the attached muscle in a frog's leg. Helmholtz also extended a theory of color vision that was published by Thomas Young which then updated to the Young-Helmholtz theory of color. He also provided theories of auditory perception, harmony, discord, and resonance.

12. What is the two-point threshold?

The two-point threshold theory refers to the theory which refers to the threshold at which two points of stimulation can be distinguished between each other.

13. What is the just noticeable difference?

The noticeable difference is the smallest difference that is noticeable between two stimuli. For example, lifting two different objects of different weights can seem the same because of their similarity in weight. The only noticeable difference is the point in which one can notice the difference in weight.

14. What two ways did Fechner propose for measuring sensation?

One way Fechner proposed for measuring sensation is through the absolute threshold which is the point of sensitivity below which no sensations can be detected and above which sensations can be experienced. The other way is through a differential threshold which refers to the point of sensitivity at which the least amount of change in a stimulus gives rise to a change in sensation.

15. According to Fechner, what does a change in sensation depend on?

Fechner states that a change in sensation is dependent on stimulation. There has to be an external stimulus in order for one to reach a point of sensation. He states that a stronger stimulus leads to a strong sensation.