

Chapter 1--A History of Neuropsychology

Student: _____

1. Lashley emphasized the _____ of brain tissue such that each part of the brain participated in more than one function.

2. A strict split between mental processes and physical abilities with mental processes being localized in the pineal gland was proposed by _____ in the 17th century.

3. The first neuropsychology laboratory was founded by _____ at the University of Chicago.

4. Pierre Marie challenged Broca's findings after he examined "Tan's" brain and found _____ damage.

5. Gall's theory attempted to describe differences in personality traits by measuring the size of _____.

6. _____ pioneered the anatomical theater, a sort of performance dissection.

7. Walter Freeman was instrumental in the proliferation of the surgical technique known as _____.

8. A(n) _____ is a researcher who studies the molecular nature of the nervous system.

9. Brain cells are also termed _____.

10. A psychologist who studies the relationship between brain functions and behavior is better known as a(n)

11. Neuropsychology can be defined as the study of brain/behavior relationships.

True False

12. Trephination may have been performed in ancient times as a magical form of healing.

True False

13. The first scientific case report that supported the localizationist perspective was presented by Franz Gall.

True False

14. The "Organ of the Soul" is connected to your inner ear.

True False

15. Broca's landmark contribution to science was his work understanding the origins of anosognosia.

True False

16. Anatomical theater is where actors portray various functions of the central nervous system.

True False

17. Wernicke localized comprehension of speech to the temporal lobe.

True False

18. Hippocrates recognized that epilepsy was a medical problem.

True False

19. Leonardo da Vinci originally made a precise sketch of the cerebral ventricles, which has uncanny similarity to photographs of the modern age.

True False

20. According to Galen, the four humors were: blood, black bile, yellow bile and saliva.

True False

21. The foundation of modern neuropsychology was heavily influenced by all of the following fields except:

- A. applied psychological evaluation.
- B. behavioral neurology.
- C. behavioral neuroscience.
- D. psychiatry.

22. The early history of neuropsychology was shaped by which two principles?

- A. materialism and phrenology
- B. localization and equipotentiality
- C. vitalism and materialism
- D. holism and vitalism

23. The ventricular localization hypothesis:

- A. suggested that the ventricles represent the location of spiritual and mental events.
- B. was originally put forth by Leonardo da Vinci.
- C. suggested that cerebrospinal fluid is produced primarily in the lateral ventricles.
- D. was an accurate representation of ventricular functioning that later became known as the cell doctrine.

24. Much of Jackson's alternative theory of brain function stemmed from his work with which neurological disorder?

- A. multiple sclerosis
- B. epilepsy
- C. Alzheimer's disease
- D. Parkinson's disease

25. The third unit of Luria's model described the _____, which is/are involved in planning and executing behavior.

- A. brain stem
- B. limbic system
- C. frontal and prefrontal lobes
- D. hippocampus and parahippocampal gyrus

26. The concept that any given area of the brain can be involved in relatively few or relatively many behaviors is known as:

- A. equipotentiality.
- B. localization.
- C. pluripotentiality.
- D. parallel distributed processing.

27. The first awareness of specific brain-behavior relationships surfaced with the:

- A. German philosophers.
- B. localizationists.
- C. Ancient Peruvian surgeons.
- D. Classical Greek philosophers.

28. Who was the first person to realize that the brain served lateralizing functions?

- A. Hippocrates
- B. Andreas Vesalius
- C. George Washington
- D. Aristotle

29. According to Rene Descartes, mental processes originated from the:

- A. pineal gland.
- B. cerebral ventricles.
- C. heart.
- D. pituitary gland.

30. Franz Gall formulated the basis of what theory?

- A. pluripotentiality
- B. equipotentiality
- C. objective neuropsychological measurement
- D. localization

31. Following Spurzheim's lectures in the nineteenth century, phrenology in the United States was:

- A. immediately detected as a farce.
- B. of little interest to American scientists.
- C. popular.
- D. Phrenology was never introduced to the United States.

32. Paul Broca is most famous for:

- A. localizing expressive speech.
- B. localizing receptive speech.
- C. determining a circuit for all aspects of speech.
- D. discovering a new neuroanatomical structure.

33. Prior to developing his theory of psychoanalysis, Sigmund Freud was:

- A. a neuroscientist.
- B. a shoe salesman.
- C. a psychologist.
- D. a neurologist.

34. Pierre Flourens utilized _____ as a method of investigation into brain function.

- A. the case study
- B. the lobotomy
- C. electroconvulsive shock
- D. the ablation experiment

35. Karl Lashley believed that:

- A. each part of the brain has more than one function.
- B. each part of the brain has exactly three functions.
- C. each part of the brain has one function.
- D. over half of neuroanatomical structures have no functions.

36. Alexander Luria developed a theory of three functional units, composed of:

- A. the brain stem, spinal cord, and frontal lobes.
- B. the brain stem, posterior areas of the cortex, and frontal lobes.
- C. the spinal cord, frontal lobes, and corpus striatum.
- D. the frontal lobes, prefrontal lobes, and Broca's area.

37. Alexander Luria's work supports the theory of:

- A. localization.
- B. equipotentiality.
- C. pluripotentiality.
- D. materialism.

38. According to Alexander Luria, following brain trauma, what is likely to occur?

- A. Neurons will continue to die and the individual will become more impaired.
- B. An alternative functional system may be able to compensate for some or all of the impairment.
- C. The entire functional system, which included the damaged tissue, will fail.
- D. New neurons will grow.

39. Ward Halstead is attributed with:

- A. founding the first neuropsychology laboratory.
- B. development of an objective means of assessing brain function.
- C. development of the Halstead-Reitan Neuropsychological Test Battery.
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40. The last three decades have been characterized by what developments in the field of neuropsychology?

- A. formation of professional organizations for neuropsychologists
- B. founding of many different journals in the field of neuropsychology
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41. What is trephination and how does it relate to current medical practices?

42. Discuss the contributions of Paul Broca and Carl Wernicke to neuropsychology.

43. Discuss the pros and cons for localization and equipotentiality theories.

44. What was Alexander Luria's contribution to neuropsychology?

45. Argue against the statement that humans only use 10% of their brains, integrating theories from Chapter 1.

Chapter 1--A History of Neuropsychology **Key**

1. Lashley emphasized the _____ of brain tissue such that each part of the brain participated in more than one function.

multipotentiality

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Ward Halstead

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