

## History &amp; Systems of Psychology --Spring 2008 (Gilpin). Exam I.

Name: \_\_\_\_\_

Instructions. There are three parts to this exam. [answers to Parts I & II at end]

Part I (Multiple choice, 3 points each): Write the letter corresponding to the one best available answer in the blank beside the item number. If more than one alternative is correct, there should be an answer indicating “all of the above”, and you would choose the letter corresponding to it; if none of the alternatives is correct, then there should be an answer indicating “none of the above”, and you would choose that phrase’s letter.

Part II (Fill in the blanks, 2 points each): From the list provided, select the one word, name, or phrase which best completes the sentence so as to make an accurate, grammatically correct statement. If two answers appear to be correct, choose the one which is more precise. Write the answer in the blank in the sentence. You may ignore capital letters and may use the same answer in more than one sentence.

Part III (Essay, 10 points): Choose one of the two questions and answer it, confining your answer to the page containing the questions. Be sure it is clear which question you have selected. You should be brief, but note any pertinent key points and use relevant terms appropriately. Though I urge you to write complete sentences, it is possible that a list, table, or outline may be acceptable provided it is clear.

Scores:

Part I \_\_\_\_\_ (60 Possible)

Part II \_\_\_\_\_ (30 Possible)

Part III \_\_\_\_\_ (10 Possible)

Total \_\_\_\_\_ (100 Possible)

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*Statement of Consent to Post Results from 400:118g:*

Please check one of the two boxes, and sign below; also indicate your student number.

I hereby give my permission for the instructor to post the results from my exams and other course requirements by student number (not by name) on the World-Wide-Web site for this class.

\_\_\_\_\_ Yes      \_\_\_\_\_ No

Signature: \_\_\_\_\_ Student No.: \_\_\_\_\_

## Part I. Multiple Choice.

- \_\_\_\_\_ 1. "History is mostly bunk" is a colorful phrase that summarizes a totally subjective view of history, attributed to what well-known figure?
- A. Stephen Foster
  - B. Henry Ford
  - C. Stephen Colbert
  - D. Winston Churchill
- \_\_\_\_\_ 2. We considered a view of history that asserts that key individuals play particularly significant, unique roles in influencing the course of psychology historically. Which of the following represents the name for that view?
- A. "éminence grise" ("grey eminence") theory
  - B. The "Big Five" theory
  - C. The "Great Man" (person) theory
  - D. The "Evolutionary Personality" theory
- \_\_\_\_\_ 3. With which of the following assertions would Renes Descartes have agreed most?
- A. The soul (mind) is the only thing that ultimately is real.
  - B. The only honorable way to resolve debates about the Mind/Body Problem is to fight duels (mind/body duelism).
  - C. The body is ultimately the only reality that humans can know or study.
  - D. Both the mind and the body are equally valid aspects of human reality.
- \_\_\_\_\_ 4. We considered the ideas of several scholars who investigated the physiological basis of reflexive behavior in animals; but one of the following figures did not become known for writing on that topic. Who was the exception?
- A. Renes Descartes.
  - B. John Locke.
  - C. David Ferrier.
  - D. Marshall Hall.
- \_\_\_\_\_ 5. Of the following people, three would have found themselves in fundamental conceptual agreement with each other about the best way to approach the history of psychology; which one of the four would have disagreed most fundamentally with the others?
- A. Henry Ford.
  - B. Frank Meshberger.
  - C. Someone who advocates a constructivist view of historical change.
  - D. An historian inclined to take an "old history" approach.
- \_\_\_\_\_ 6. Following are several people who made important contributions to early psychology; however, only one distinguished himself as a psychiatrist. Which one was that?
- A. Johannes Müller.
  - B. Hermann von Helmholtz.
  - C. Benjamin Rush.
  - D. Marshall Hall.

- \_\_\_\_\_ 7. Of the following philosophers we considered, which one's ideas would be most consistent with the "new" history approach we discussed?
- A. John Locke.
  - B. George Berkeley.
  - C. David Hume.
  - D. John Stuart Mill.
- \_\_\_\_\_ 8. Which of the following statements regarding Franz Joseph Gall is accurate?
- A. He is best known for a reductionist theory about abilities.
  - B. He based his theories on solid, scientific evidence still regarded as convincing.
  - C. He employed extirpation techniques widely in studying the nervous system.
  - D. All of the above.
- \_\_\_\_\_ 9. What was the main feature of the philosophical viewpoint known as "Positivism"?
- A. You should avoid dwelling on unpleasant thoughts and you'll feel better about yourself.
  - B. History inevitably involves judgments and interpretations reflecting a particular social context.
  - C. Science can ultimately provide answers to all problems faced by humanity.
  - D. None of the above.
- \_\_\_\_\_ 10. George Berkeley was considered rather extreme even by scholars who cited some of his ideas with approval. Which of the following assertions would Berkeley have made, that few of his fellows would have agreed with?
- A. There are two levels of ideas, differing in their complexity.
  - B. All reality is actually ideal (i.e., an idea), if not in our minds, then ultimately in the mind of God.
  - C. Human understanding is acquired through experience and association of ideas.
  - D. True science involves research in which hypotheses are formally tested.
- \_\_\_\_\_ 11. What was the basic notion in "phrenology"?
- A. Mental illness can often be controlled with the use of drugs.
  - B. Mental illness often is symptomatic of an infectious disease.
  - C. Abilities and traits reflect bunches of neurons causing bumps in particular regions of peoples' heads.
  - D. Parents generally pass on to their offspring unique abilities as well as disorders.
- \_\_\_\_\_ 12. Which element of modern scientific methodology became widely used more recently than the other elements in the following list?
- A. Inductive logic and experimentation.
  - B. Hypotheses being stated and tested.
  - C. Direct empirical observation of reality.
  - D. Deductive logic.
- \_\_\_\_\_ 13. With which of the following assertions would John Stuart Mill have agreed?
- A. Learning occurs mostly through association between ideas.
  - B. All human knowledge is learned gradually through experience.
  - C. An important goal for researchers is to determine a "periodic chart" for psychology-- i.e., rules for "mental chemistry".
  - D. All of the above.

- \_\_\_\_\_ 14. Which of the following is not a reductionistic theory or concept?
- A. Our perceptions of an external reality are actually just ideas in someone (possibly God's) mind.
  - B. Color perception involves three distinct types of color sensitive neurons in the retina.
  - C. Differences in personality and intellectual abilities result from unusual numbers of neurons in particular regions of the brain.
  - D. Aggression may have a genetic basis, in genes carried on the "Y" chromosome.
- \_\_\_\_\_ 15. A famous "law" in psychophysics relates perceived changes in stimulation to what?
- A. Hunger.
  - B. The sequence of eye motions.
  - C. The initial level of stimulation.
  - D. None of the above.
- \_\_\_\_\_ 16. What is the title by which the book that introduced the "Theory of Evolution" became known, and in what year was it published?
- A. "Psychology as Science"; 1824.
  - B. "The Functions of the Brain"; 1876.
  - C. "Malleus Maleficarum"; 1486.
  - D. "The Origin of Species"; 1859.
- \_\_\_\_\_ 17. What is the goal of researchers using the technique known as "extirpation"?
- A. Eliminating theories that aren't supported by objectively observed results.
  - B. Determining the function of particular neurological structures.
  - C. Ensuring that all scientists hold essentially similar views about basic assumptions and findings.
  - D. None of the above.
- \_\_\_\_\_ 18. What British empiricist philosopher systematically raised his son with extra stimulation that he believed would make the son a genius?
- A. John Locke.
  - B. David Hume.
  - C. Immanuel Kant.
  - D. None of the above.
- \_\_\_\_\_ 19. John Locke wrote about a famous "thought problem" posed to him in a letter from William Molyneux, in which Locke considered implications of his philosophical position for what hypothetical phenomenon?
- A. Correction of congenital (from birth) blindness in an adult human.
  - B. Reflex activity in a cat with a severed spinal cord.
  - C. Electrical stimulation of the motor cortex in a monkey's brain.
  - D. Head trauma due to a metal spike piercing a man's brain.
- \_\_\_\_\_ 20. Several historical figures played important roles in the growing investigation of brain functioning, but one in particular became a controversial target of public protests in support of what would now be called "animal rights". Who was that, and what practice was he accused (accurately, albeit emotionally) of employing in his research?
- A. David Ferrier; vivisection.
  - B. Marshall Hall; extirpation.
  - C. William of Occam; parsimony.
  - D. Phineas Gage; monism.

Part II. Fill in the Blanks  
List of Possible Answers:

Aristotle	Ferrier	Ophthalmoscope
Bacon	Fluorens	Pancreas
Beagle	Gage (Phineas)	Paradigm
Berkeley	Gall	Parsimony
Brain	Great Person	Phrenology
Broca	Helmholtz	Pineal
Cerebellum	Henry Ford	Pituitary
Cerebrum	Herbart	Popper
Clinical	Hume	Positivism
Comte	Hypothetico-	Psychophysics
Control	Independent	Reaction
Cranioscopy	Locke	Reductionism
Darwin	Localization	Reflexes
Descartes	Mechanism	Rush
Determinism	Meshberger	Specific energy
Donders	Michaelangelo	Tabula rasa
Dualism	Mind/body	Vesalius
Empiricist	Monism	Vivisection
Ethnocentrism	Müller	von Helmholtz
Evolution	Nativist	Zeitgeist
Extirpation	Neural conduction	
Fechner	Occam's razor	

1, 2. The German physiologist Johannes \_\_\_\_\_ is credited with having determined that sensory neurons respond to stimulation producing characteristic and fixed sensations--a phenomenon often called \_\_\_\_\_ of neurons.

3. "Occam's Razor" is sometimes called the "Law of \_\_\_\_\_"; it provides a basis for deciding which of several competing explanations is the best.

4, 5. Descartes made important and lasting contributions to mathematics as well as to philosophy, but his view of the \_\_\_\_\_ Problem, which localized connections in the \_\_\_\_\_ gland, has been discredited.

6, 7. The Flemish (Belgian) scholar \_\_\_\_\_ is usually considered to have published the first medical drawings including detailed representations of the anatomy of the human \_\_\_\_\_.

8. Some historians attribute key developments to broad cultural themes prevailing in particular societies at particular times; such an attribution to the "spirit" of the era is called the \_\_\_\_\_ interpretation of history.

9, 10. Probably no other biologist in history has had more impact than \_\_\_\_\_, best known for his controversial theory of \_\_\_\_\_.

11, 12. The Dutch researcher F. C. Donders, a(n) \_\_\_\_\_ researcher studying \_\_\_\_\_ time to infer what would now be called information processing mechanisms that underlie human perception, was considered by later scholars to have been far ahead of his contemporaries in understanding.

13, 14. \_\_\_\_\_, a(n) \_\_\_\_\_ researcher who studied with Ernst Weber, claimed that his similar ideas about perception of stimulus differences arose independently of the latter's work.

15. Among Hermann von Helmholtz's many contributions were the estimation of the speed of \_\_\_\_\_.

Part III. Write on either question.

1. Which view of historical perspective--"old" history or "new" history--do you think would have assigned greater value to developments associated with Nineteenth Century psychophysics, and why?

Or

2. Do you think Rene Descartes would have approved of David Ferrier's research on monkey brains? Support your position.

Part III Essay Scoring Summary [instructor use only]

Scoring of essays will be based on ratings of 0, 1, or 2 points on each of the following aspects:

- \_\_\_\_\_ Clear answer to the question (you stated a specific position)
- \_\_\_\_\_ Appropriate use of terms (defined precisely, accurately, and relevant)
- \_\_\_\_\_ Reference to course content (generally noting relevant concepts or principles)
- \_\_\_\_\_ Consistency (your arguments support your position and don't contradict themselves)
- \_\_\_\_\_ Clarity (answer is well organized, grammar is conventional, spelling is accurate)

Total: \_\_\_\_\_ points of 10 possible

**Answers**

Part I:

1:B; 2:C; 3:D; 4:B; 5:D; 6:C; 7:B; 8:A; 9:C; 10:B; 11:C; 12:B; 13:D; 14:A; 15:C; 16:D; 17:B; 18:D (James Mill); 19:A; 20:A.

Part II:

1:Muller; 2:Specific energy; 3:Parsimony; 4:Mind/body; 5:Pineal; 6:Vesalius; 7:Brain; 8:Zeitgeist; 9:Darwin; 10:Evolution; 11:Psychophysics; 12:Reaction; 13:Fechner; 14:Psychophysics; 15:Neural conduction.

400:118g History & Systems of Psych - Exam I, Part III Sample Answers (Gilpin, Sp 2008).

1. Which view of historical perspective--"old" history or "new" history--do you think would have assigned greater value to developments associated with Nineteenth Century psychophysics, and why?

*Perhaps the main theme in the psychophysics research done by Nineteenth Century researchers such as Hermann von Helmholtz, Ernst Weber, and Gustav Fechner was that although people follow lawful processes in perceiving and interpreting external events, those perceptions are constructed actively and do not correspond in a direct way to reality measured objectively with physical instrumentation. The Weber/Fechner Law relating perceived amount of change as an exponential function of objective stimulus level illustrates the inherently subjective nature of perception as described by psychophysicists. The historian/philosopher Furumoto described the "New History" as embracing the notion that understanding of historical events is similarly subjective. Whereas "Old History" authors hoped to arrive at a complete description of events, accurate in an absolute sense, "New History" authors suppose that history inevitably involves subjective judgments and permits of diverse, possibly discrepant, but equally valid, interpretations. Given the central role of subjectivity in psychophysics research and in the "New History" view, it's logical to suppose the latter would assign greater importance to psychophysics than the "Old History", other things equal.*

Or

2. Do you think Rene Descartes would have approved of David Ferrier's research on monkey brains? Support your position.

*Mathematician/philosopher Rene Descartes preceded David Ferrier by two and a half centuries chronologically, but in many senses they appear to have been simpatico. Ferrier's innovative (for the turn of the Twentieth Century) use of electrical currents delivered to monkeys' motor cortexes in order to stimulate contractions of specific muscles was important not only by virtue of its social significance (like Descartes, Ferrier experienced public resistance and persecution because his work challenged established beliefs) but also because of its contribution to what was by that time a long-standing interest following from Descartes' own speculation about brain specialization--although the cortex seems more relevant than the pineal gland from modern perspective. The connection is more impressive viewed in philosophical context. Had Descartes not legitimized scientific study of animal bodies in positing mind/body dualism, there would have been less basis for studying animal nervous systems in hopes of gaining applications for human medicine and psychology. So I think Descartes would probably have seen Ferrier's work as a rather logical continuation of his own ideas.*

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- \_\_\_\_\_ Clarity (answer is well organized, grammar is conventional, spelling is accurate)

Total: \_\_\_\_\_ points of 10 possible

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Total: \_\_\_\_\_ points of 10 possible