



# Test Bank to accompany Cultural Psychology, Second Edition By Steven J. Heine

Test Bank by Benjamin Y. Cheung

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## Chapter 2 Culture and Human Nature

### Concept Map

- A. Definition of culture
  - a. Is culture unique to humans?
- B. Human cultural learning
  - a. Theory of mind
    - i. Imitative learning
    - ii. Emulative learning
  - b. Language
- C. Cumulative cultural learning
  - a. Ratchet effect
- D. Origins of human cultural learning
  - a. Brain
    - i. Encephalization quotient
    - ii. Pros and cons of large brains
      - 1. Muscle mass
      - 2. Digestive tract
    - iii. How big brains evolved
      - 1. Fruit-based diets
      - 2. Extraction-based diets
      - 3. Social brain hypothesis
      - 4. Neocortex ratio

## Questions

1. Which of the following statements is **NOT** true about animals and culture?

- a) Humans appear to be the only species that uses symbolic coding.
- b) Culture is found in several species of primates, but not in other animals.
- c) There are behaviors common in chimpanzees in one location that are absent from chimpanzees in another location.
- d) Chimpanzees show good emulative learning, but poor imitative learning, compared with humans.
- e) Aside from humans, no other species shows evidence for much cumulative culture.

ANS: B

DIF: Hard

REF: Is Culture Unique to Humans?; Theory of Mind; Cumulative Cultural Evolution

TOP: A.a. Is culture unique to humans?; B.a. Theory of mind; C. Cumulative cultural learning

MSC: Factual

2. Which of the following statements is **TRUE** regarding chimpanzees living in the wild?

- a) They do not show conclusive evidence for a theory of mind.
- b) They communicate with a vocabulary of about 60 recognizable words.
- c) They bring others to locations so that they can observe things there.
- d) They point to outside objects.
- e) All of the statements are true.

ANS: A

DIF: Medium

REF: Theory of Mind

TOP: B.a. Theory of mind

MSC: Factual

3. Why isn't there much cumulative culture among chimpanzees?

- a) Chimpanzees don't have skilled problem-solving skills.
- b) Chimpanzees have relatively poor memories.
- c) Chimpanzees aren't able to write their ideas down for future generations to read.
- d) Chimpanzees aren't a social species.
- e) Chimpanzees aren't very good at imitative learning.

ANS: E

DIF: Medium

REF: Is Culture Unique to Humans?; Theory of Mind; Language Facilitates Cultural Learning; Cumulative Cultural Evolution

TOP: A.a. Is culture unique to humans?; B. Human cultural learning; C. Cumulative cultural learning

MSC: Conceptual

4. Which of the following statements is **NOT** true?

- a) Primate species that rely heavily on fruit in their diets have larger neocortex ratios than do primate species that do not rely much on fruit.
- b) Primates have larger brains as a function of their body weight than do most other mammals.
- c) Primate species with large social networks have larger neocortex ratios than do those with smaller social networks.
- d) Human brains require more caloric energy than do the brains of most other species.
- e) All of the statements are true.

ANS: A

DIF: Easy

REF: What Is the Evolutionary Advantage of a Large Brain?

TOP: D.a.iii. How big brains evolved

MSC: Factual

5. What theory is best supported for why primates evolved such large brains?

- a) They tend to eat foods that are rich in protein, which can support expansive neural development.
- b) They tend to eat fruit, and need to be clever enough to remember where the fruit trees were that would be ripe at each point in the season.
- c) They tend to eat foods that require ingenuity to extract, such as nuts and termites.
- d) They tend to live in large social groups, which requires intelligence to function effectively.
- e) The number of males and females is unequal, so individuals need to outsmart their competitors to attract mates.

ANS: D

DIF: Easy

REF: What Is the Evolutionary Advantage of a Large Brain?

TOP: D.a.iii. How big brains evolved

MSC: Factual

6. Emulative and imitative learning can be contrasted in that

- a) imitative learning leads to better solutions than emulative learning.
- b) chimpanzees can perform well at tasks involving imitative learning, but not at tasks involving emulative learning.
- c) emulative learning does not require imitating a model's behavioral strategies.
- d) emulative learning is a necessary precondition for cultural accumulation.
- e) 2-year-old children tend to solve tasks with emulative learning of behavioral strategies, whereas 1-year-olds do not.

ANS: C

DIF: Medium

REF: Theory of Mind

TOP: B.a. Theory of mind

MSC: Factual

7. Which child(ren) below demonstrate(s) the existence of theory of mind?

- a) A child who hides his toys so his mother won't find them.
- b) A child who likes to ride the family dog like a rodeo bull.
- c) A child who assumes that everyone knows everything she knows.
- d) All of these children
- e) None of these children

ANS: A

DIF: Medium

REF: Theory of Mind

TOP: B.a. Theory of mind

MSC: Applied

8. Homer sharpens a rock and uses it to shave. Schick adds a handle to the rock for better grip. Gillette then changes the rock to a titanium blade for durability. The progression of improvements made to the shaving utensil is an example of

- a) cultural adaptation.
- b) emulative learning.
- c) eureka effect.
- d) cultural bootstrapping.
- e) ratchet effect.

ANS: E

DIF: Easy

REF: Theory of Mind; Cumulative Cultural Evolution

TOP: B.a. Theory of mind; C.a. Ratchet effect

MSC: Applied

9. According to the social brain hypothesis, which of the following is **TRUE**?

- a) The large brains of primates allows them to have larger societies.
- b) Evolution favors those who do well in maintaining social relationships.
- c) The neocortex ratio in primates limits population groups to 150 members.
- d) Students who the study social sciences are mentally healthier than those who don't.
- e) The neocortex ratio in primates allows for population groups to exceed 150 members.

ANS: B

DIF: Easy

REF: What Is the Evolutionary Advantage of a Large Brain?

TOP: D.a.iii.3. Social brain hypothesis

MSC: Factual

10. Which of the following is **TRUE** of the relationship specifically between *human* brains and group size, according to Dunbar?

- a) The cognitive demands placed on the need to navigate through complex social relationships led to an increase in the size of the human brain.
- b) The neocortex ratio in humans gives them the capacity to keep track of about 150 relationships.
- c) The smaller the group size, the faster the brain deteriorates into goo.
- d) Humans with larger brains have an affinity for larger groups.
- e) Living in larger social groups tended to lead to larger neocortex ratios.

ANS: B

DIF: Medium

REF: What Is the Evolutionary Advantage of a Large Brain?

TOP: D.a.iii.3. Social brain hypothesis; D.a.iii.4. Neocortex ratio

MSC: Factual

11. If a child wants to be a great ice hockey player and chooses to learn from Wayne Gretzky as the *prestigious model*, what aspect(s) of Wayne Gretzky is the child most likely to imitate?

- a) Wayne Gretzky's playing style during a game
- b) Wayne Gretzky's hairstyle
- c) idolizing the same person Wayne Gretzky idolized as a child
- d) Wayne Gretzky's off-ice workout program
- e) everything that Wayne Gretzky does, both related and unrelated to hockey

ANS: E  
DIF: Easy  
REF: Cultural Learning  
TOP: B. Human cultural learning  
MSC: Applied

12. According to Henrich's mathematical model, why would complex cultural knowledge deteriorate, as was the case in 18th-century Tasmania?

- a) An influx of outsiders into a population dilutes the population's cultural knowledge .
- b) If malnutrition occurs, the neocortex ratio needed for the ratchet effect cannot develop.
- c) Immigration creates confusion as to what qualifies as cultural knowledge.
- d) Shrinkage in the population leads to a lack of skilled models for people to copy.
- e) It is in the nature of cultural evolution that some cultural ideas fall out of favor in time.

ANS: D  
DIF: Hard  
REF: Cultural Learning  
TOP: B. Human cultural learning  
MSC: Factual

13. A child observes a model using a new tool to crack open an acorn. The child does not copy exactly what the model does, nor understand that the model wanted to crack acorns. The child simply sees that the tool can be used to crack acorns and tries to figure out on his own how to use the tool to crack acorns. What is the child exhibiting?

- a) simple mimicry
- b) observational learning
- c) emulative learning
- d) theory of mind
- e) imitative learning

ANS: C  
DIF: Medium  
REF: Theory of Mind  
TOP: B.a. Theory of mind  
MSC: Applied

14. After studying four species of Martian animals that have the same body size, the scientists obtained the following data:

Species	Brain weight (g)	Neocortex volume (cm <sup>3</sup> )
A	120	120
B	86	23
C	134	67
D	95	94

Which species has the largest encephalization quotient? (no calculator needed)

- a) A
- b) B
- c) C
- d) D
- e) The answer cannot be determined with the available data.

ANS: C

DIF: Hard

REF: You and Your Big Brain

TOP: D.a.i. Encephalization quotient

MSC: Applied

15. After measuring the neocortex ratio of two species, it was determined that Species A has a ratio of .25, whereas Species B has a ratio of .20. Based on the evidence discussed in the textbook, which of the following can one most likely conclude about these two species?

- a) Species A's diet contains more fruit than Species B's diet.
- b) Species B has higher intelligence than Species A.
- c) Species A uses more extractive techniques to get food than Species B.
- d) Species B lives in a smaller social group than Species A.
- e) Species A has a larger brain relative to its body size than Species B.

ANS: D

DIF: Easy

REF: What Is the Evolutionary Advantage of a Large Brain?

TOP: D.a.iii. How big brains evolved

MSC: Applied

16. On Planet X, you observe that a primate-like species is undergoing rapid evolution, with their brains having grown significantly in volume. Based on the textbook's discussion about a similar process that took place in human evolution, what physiological changes to this alien species would you **NOT** expect to accompany this growth in brain volume? Assume that body size has not changed.

- a) decreased muscle mass
- b) shorter fingers and limbs
- c) diminished energetic demands elsewhere on the body

- d) increased encephalization quotient
- e) shortened digestive tract

ANS: B

DIF: Medium

REF: Humans Versus Chimpanzees

TOP: D.a.ii. Pros and cons of large brains

MSC: Applied

17. A team of scientists observes that a new species (Species X) tends not to copy exactly how a model uses a new tool; instead, they are very adept at figuring out on their own how to best use the tool. Conversely, another new species (Species Y) does tend to copy exactly how a model uses a new tool, paying attention to the behavioral strategies of the model. Based on this observation, what trajectory should we expect their respective cultural development to be like?

- a) Species X will likely not have cumulative culture and Species Y will likely have cumulative culture.
- b) Species X will likely have cumulative culture and Species Y will likely not have cumulative culture.
- c) Both species will likely have cumulative culture.
- d) Neither species will likely have cumulative culture.
- e) The scientists' observations have no relationship to accumulation of culture.

ANS: A

DIF: Hard

REF: Theory of Mind; Cumulative Cultural Evolution

TOP: B.a. Theory of mind; C. Cumulative cultural learning

MSC: Applied

18. Which of the following (historically inaccurate) examples best demonstrates the process of the ratchet effect?

- a) Ke\$ha brushes her teeth with a bottle of whiskey, but Lady Gaga gives her a tube of toothpaste because it cleans teeth better.
- b) Wolverine and Thor independently create the first hammers. Wolverine's hammer is simply a rock, whereas Thor's hammer has a metal head and a long handle.
- c) Wayne Gretzky demonstrates how to use a hockey stick to shoot pucks, and everyone then tries to figure out how the stick can be used to shoot pucks.
- d) Marx creates a new political ideology, Lenin builds on that ideology, and Stalin further expands on it.
- e) Rafael Nadal demonstrates how to use a tennis racquet to hit a ball, and everyone mimics Rafael's movements with their racquets.



ANS: D

DIF: Medium

REF: Cumulative Cultural Evolution

TOP: C.a. Ratchet effect

MSC: Applied

19. An infant of Species X sees a model use a new tool to achieve a goal. Which of the following scenarios best demonstrates that the infant is engaging in emulative learning?

- a) The infant tries to determine which of the model's actions were most relevant in using the new tool to achieve the goal.
- b) The infant tries to determine what it is about the tool that allowed the model to achieve the goal.
- c) When given the tool, the infant figures out on her own how to use the tool to achieve the same goal.
- d) When given the tool, the infant mimics exactly how the model used the tool to achieve the goal.
- e) The infant stares blankly at the model.

ANS: C

DIF: Easy

REF: Theory of Mind

TOP: B.a. Theory of mind

MSC: Applied

20. An infant of Species X sees a model use a new tool to achieve a goal. Which of the following demonstrates that the infant is engaging in imitative learning?

- a) When given the tool, the infant figures out on his own how to use the tool to achieve the same goal.
- b) The infant tries to determine which of the model's actions were most relevant in using the new tool to achieve the goal.
- c) When given the tool, the infant mimics exactly how the model used the tool.
- d) The infant stares blankly at the model.
- e) The infant tries to determine what it is about the tool that allowed the model to achieve the goal.

ANS: C

DIF: Easy

REF: Theory of Mind

TOP: B.a. Theory of mind

MSC: Applied

21. After studying four species of Neptunian animals, the scientists obtained the following data:

Species	Brain volume without neocortex (cm <sup>3</sup> )	Neocortex volume (cm <sup>3</sup> )
A	45	90
B	80	84
C	20	67
D	82	84

According to Dunbar's social brain hypothesis, which species should have the largest social groups? (no calculator needed)

- a) A
- b) B
- c) C
- d) D
- e) The answer cannot be determined with the available data.

ANS: A

DIF: Medium

REF: What Is the Evolutionary Advantage of a Large Brain?

TOP: D.a.iii.4. Neocortex ratio

MSC: Applied

22. According to Dunbar, why would larger social groups be associated with the evolution of larger brains?

- a) Larger groups provided more protection for survival, allowing for evolution of larger brains.
- b) Smaller groups tended to be too cohesive and unwilling to adopt new ideas, leading to stagnant brain evolution.
- c) Smaller groups were more vulnerable to predation and defeat in warfare, preventing the evolution of larger brains.
- d) Larger groups were more successful in hunting, and the additional food led to the evolution of larger brains.
- e) Larger groups had greater social complexity, driving the evolution of larger brains to handle such complexity.

ANS: E

DIF: Easy

REF: What Is the Evolutionary Advantage of a Large Brain?

TOP: D.a.iii.3. Social brain hypothesis

MSC: Conceptual

23. You and a small handful of people have split off from a large and technologically advanced society to settle on another island. According to Henrich's mathematical model, what will most likely happen to the development of cultural technology in your splinter group?

- a) The cultural technology of your group will likely ratchet up due to a concentrated effort among this handful of people.
- b) The cultural technology of your group will remain the same.
- c) The cultural technology of your group will exceed the technological complexity of the original society.
- d) The cultural technology of your group will likely devolve due to a lack of skilled models.
- e) Splitting from a larger group has nothing to do with the development of cultural technology.

ANS: D

DIF: Easy

REF: Cultural Learning

TOP: B. Human cultural learning

MSC: Applied

24. How does one find an animal's encephalization quotient (EQ)?

- a) It is a complex conversion from an animal's intelligence quotient (IQ).
- b) It is the ratio of an animal's brain weight to the brain weight predicted for a comparable animal with the same body size.
- c) It is the ratio of an animal's brain weight to its body size.
- d) It is the ratio of the volume of an animal's neocortex to the volume of its brain.
- e) It is the difference between the volume of an animal's brain and the volume of its neocortex.

ANS: B

DIF: Easy

REF: You and Your Big Brain

TOP: D.a.i. Encephalization quotient; D.a.iii.4. Neocortex ratio

MSC: Factual

25. Humans tend to copy everything that a prestigious model does, because humans

- a) engage in emulative learning.
- b) just love to learn.
- c) engage in imitative learning.
- d) assume that a prestigious model knows everything.
- e) don't know what it is about the model that made him/her successful.

ANS: E  
DIF: Medium  
REF: Cultural Learning  
TOP: B. Human cultural learning  
MSC: Conceptual

26. After studying four species of newly discovered primates that have the same body size, the scientists obtained the following data:

Species	Brain volume without neocortex (cm <sup>3</sup> )	Brain surface area (cm <sup>2</sup> )	Neocortex volume (cm <sup>3</sup> )
A	80	120	90
B	25	86	84
C	66	134	67
D	22	95	84

Rank order the species by their expected social group size, from greatest to smallest, according to Dunbar. (no calculator needed)

- a)  $D > B > A > C$
- b)  $A > B = D > C$
- c)  $C > A > B = D$
- d)  $B > D > A > C$
- e) The answer cannot be determined with the available data.

ANS: A  
DIF: Hard  
REF: What Is the Evolutionary Advantage of a Large Brain?  
TOP: D.a.iii.4. Neocortex ratio  
MSC: Applied

27. A 2.5-year-old human child, a chimpanzee, and an orangutan are presented with the same problem-solving task—they must figure out how to use a tool to reach up to the top of a cabinet and nudge a wooden block that will knock over a banana. Based on Hermann and colleagues' findings, which of the three participants will outperform the others?

- a) the human child
- b) the chimpanzee
- c) the orangutan
- d) None will be able to complete the task.
- e) They will all perform equally well.

ANS: E  
DIF: Easy

REF: What Is the Evolutionary Advantage of a Large Brain?  
TOP: D.a.iii. How big brains evolved  
MSC: Applied

28. Which of the following is **NOT** direct evidence for the social brain hypothesis?

- a) Humans outperform other primates in social problem-solving tasks.
- b) More social species of whales and birds have larger brains.
- c) Humans have a large encephalization quotient.
- d) Less social animals have fewer cognitive skills.
- e) As predicted by the neocortex ratio, the average human social group size in subsistence societies is around 150 members.

ANS: C

DIF: Medium

REF: What Is the Evolutionary Advantage of a Large Brain?

TOP: D.a.iii.3. Social brain hypothesis

MSC: Applied

29. You examine four newly discovered primate species that have the same body size, and obtain the following data:

Species	Brain volume without neocortex (cm <sup>3</sup> )	Brain weight (g)	Neocortex volume (cm <sup>3</sup> )
A	80	120	90
B	25	95	84
C	66	70	67
D	22	86	84

Based on these observations, what can you **NOT** reasonably infer given what is discussed in the textbook?

- a) Species B has the second largest encephalization quotient.
- b) Species C deals with the lowest levels of social complexity.
- c) Species D and C have, respectively, the largest and the smallest neocortex ratios.
- d) Species A has the largest average group size.
- e) Species D and B have the same volume of neocortex.

ANS: D

DIF: Hard

REF: What Is the Evolutionary Advantage of Large Brains?

TOP: D.a.iii.4. Neocortex ratio

MSC: Conceptual

30. Among three newly discovered species of primates, Species A's diet is based fully on fruits, Species B's diet is based fully on food that requires extractive foraging methods, and Species C's diet is highly social. Which species should have the largest encephalization quotient (EQ)?

- a) Species A
- b) Species B
- c) Species C
- d) All three species have the same EQ.
- e) The answer cannot be determined with the available information.

ANS: E

DIF: Medium

REF: You and Your Big Brain; What Is the Evolutionary Advantage of a Large Brain?

TOP: D.a.i. Encephalization quotient; D.a.iii. How big brains evolved

MSC: Applied