

Reading comprehension

WHICH HAND DID THEY USE?

We all know that many more people today are right-handed than left-handed. Can one trace this same pattern far back in prehistory? Much of the evidence about right-hand versus left-hand dominance comes from stencils and prints found in rock shelters in Australia and elsewhere, and in many Ice Age caves in France, Spain, and Tasmania. When a left hand has been stenciled, this implies that the artist was right-handed, and vice versa. Even though the paint was often sprayed on by mouth, one can assume that the dominant hand assisted in the operation. One also has to make the assumption that hands were stenciled palm downward—a left hand stenciled palm upward might of course look as if it were a right hand. Of 158 stencils in the French cave of Gargas, 136 have been identified as left, and only 22 as right; right-handedness was therefore heavily predominant.

Cave art furnishes other types of evidence of this phenomenon. Most engravings, for example, are best lit from the left, as befits the work of right-handed artists, who generally prefer to have the light source on the left so that the shadow of their hand does not fall on the tip of the engraving tool or brush. In the few cases where an Ice Age figure is depicted holding something, it is mostly, though not always, in the right hand.

Clues to right-handedness can also be found by other methods. Right-handers tend to have longer, stronger, and more muscular bones on the right side, and Marcellin Boule as long ago as 1911 noted the La Chapelle-aux-Saints Neanderthal skeleton had a right upper arm bone that was noticeably stronger than the left. Similar observations have been made on other Neanderthal skeletons such as La Ferrassie I and Neanderthal itself.

Fractures and other cut marks are another source of evidence. Right-handed soldiers tend to be wounded on the left. The skeleton of a 40- or 50-year-old Nabatean warrior, buried 2,000 years ago in the Negev Desert, Israel, had multiple healed fractures to the skull, the left arm, and the ribs.

Tools themselves can be revealing. Long-handed Neolithic spoons of yew wood preserved in Alpine villages dating to 3000 B.C. have survived; the signs of rubbing on their left side indicate that their users were right-handed. The late Ice Age rope found in the French cave of Lascaux consists of fibers spiraling to the right, and was therefore tressed by a right-hander.

Occasionally one can determine whether stone tools were used in the right hand or the left, and it is even possible to assess how far back this feature can be traced. In stone toolmaking experiments, Nick Toth, a right-hander, held the core (the stone that would become the tool) in his left hand and the hammer stone in his right. As the tool was made, the core was rotated clockwise, and the flakes, removed in sequence, had a little crescent of cortex (the core's outer surface) on the side. Toth's knapping produced 56 percent flakes with the cortex on the right, and 44 percent left-oriented flakes. A left-handed toolmaker would produce the opposite pattern. Toth has applied these criteria to the similarly made pebble tools from a number of early sites (before 1.5 million years) at Koobi Fora, Kenya, probably made by *Homo habilis*. At seven sites he found that 57 percent of the flakes were right-oriented, and 43 percent left, a pattern almost identical to that produced today.

About 90 percent of modern humans are right-handed: we are the only mammal with a preferential use of one hand. The part of the brain responsible for fine control and movement is located in the left cerebral hemisphere, and the findings above suggest that the human brain was already asymmetrical in its structure and function not long after 2 million years ago. Among Neanderthals of 70,000-35,000 years ago,

Marcellin Boule noted that the La Chapelle-aux-Saints Individual had a left hemisphere slightly bigger than the right, and the same was found for brains of specimens from Neanderthal, Gibraltar, and La Quina.

Directions: Now answer the questions.

We all know that many more people today are right-handed than left-handed. Can one trace this same pattern far back in prehistory? Much of the evidence about right-hand versus left-hand dominance comes from stencils and prints found in rock shelters in Australia and elsewhere, and in many Ice Age caves in France, Spain, and Tasmania. When a left hand has been stenciled, this implies that the artist was right-handed, and vice versa. Even though the paint was often sprayed on by mouth, one can assume that the dominant hand **assisted in** the operation. One also has to make the assumption that hands were stenciled palm downward—a left hand stenciled palm upward might of course look as if it were a right hand. Of 158 stencils in the French cave of Gargas, 136 have been identified as left, and only 22 as right right-handedness was therefore heavily predominant.

1. The phrase "**assisted in**" in the passage is closest in meaning to
 - A. Initiated
 - B. Dominated
 - C. Helped with
 - D. Set up
2. It can be inferred from paragraph 1 that even when paint was sprayed by mouth to make a hand stencil
 - A. there was no way to tell which hand was stenciled
 - B. the stenciled hand was the weaker hand
 - C. the stenciled hand was the dominant hand
 - D. artists stenciled more images of the dominant hand than they did of the weak

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3. The word "depicted" in the passage is closest in meaning to
 - A. Identified
 - B. Revealed
 - C. Pictured
 - D. Imagined
4. Which of the sentences below best expresses the essential information in the highlighted sentence in the passage? Incorrect choices change the meaning in important ways or leave out essential information.
 - A. Right-handed artists could more easily have avoided casting shadows on their work, because engravings in prehistoric caves were lit from the left.
 - B. The tips of engraving tools and brushes indicate that these instruments were used by right-handed artists whose work was lit from the left.

- C. The best lighting for most engravings suggests that they were made by right-handed people trying to avoid the shadow of their hands interfering with their work.
- D. Right-handed artists try to avoid having the brush they are using interfere with the light source.

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- 5. All of the following are mentioned in paragraphs 1 and 2 as evidence of right-handedness in art and artists EXCEPT
 - A. the ideal source of lighting for most engravings
 - B. the fact that a left-hand stenciled palm upward might look like a right-hand
 - C. the prevalence of outlines of left hands
 - D. figures in prehistoric art holding objects with the right hand

Clues to right-handedness can also be found by other methods. Right-handers tend to have longer, stronger, and more muscular bones on the right side, and Marcellin Boule as long ago as 1911 noted the La Chapelle-aux-Saints Neanderthal skeleton had a right upper arm bone that was noticeably stronger than the left. Similar observations have been made on other Neanderthal skeletons such as La Ferrassie I and Neanderthal itself.

- 6. According to paragraph 3, the La Chapelle-aux-Saints Neanderthal skeleton can be identified as right-handed because
 - A. other Neanderthal skeletons found nearby are also right-handed
 - B. the right arm bone is stronger than the left
 - C. it is similar to skeletons of La Ferrassie I and Neanderthal
 - D. the right side of the skeleton shows less evidence of fractures

Fractures and other cut marks are another source of evidence. Right-handed soldiers tend to be wounded on the left. The skeleton of a 40- or 50-year-old Nabatean warrior, buried 2,000 years ago in the Negev Desert, Israel, had multiple healed fractures to the skull, the left arm, and the ribs.

- 7. Which of the following statements about fractures and cut marks can be inferred from paragraph 4?
 - A. fractures and cut marks caused by right-handed soldiers tend to occur on the right side of the injured party's body.

- B. The right arm sustains more injuries because, as the dominant arm, it is used more actively.
- C. In most people, the left side of the body is more vulnerable to injury since it is not defended effectively by the dominant arm.
- D. Fractures and cut marks on fossil humans probably occurred after death.

Tools themselves can be revealing. Long-handed Neolithic spoons of yew wood preserved in Alpine villages dating to 3000 B.C. have survived; the signs of rubbing on their left side indicate that their users were right-handed. The late Ice Age rope found in the French cave of Lascaux consists of fibers spiraling to the right, and was therefore tressed by a right-hander.

8. According to paragraph 5, what characteristic of a Neolithic spoon would imply that the spoon's owner was right-handed?
 - A. the direction of the fibers
 - B. Its long handle
 - C. The yew wood it is carved from
 - D. Wear on its left side
9. In paragraph 5, why does the author mention the Ice Age rope found in the French cave of Lascaux?
 - A. As an example of an item on which the marks of wear imply that it was used by a right-handed person
 - B. Because tressing is an activity that is easier for a right-handed person than for a left-handed person
 - C. Because the cave of Lascaux is the site where researchers have found several prehistoric tools made for right-handed people
 - D. As an example of an item whose construction shows that it was made by a right handed person

Occasionally one can determine whether stone tools were used in the right hand or the left, and it is even possible to assess how far back this feature can be traced. In stone toolmaking experiments, Nick Toth, a right-hander, held the core (the stone • A A a • • • that would become the tool) in his left hand and the hammer stone in his right. As the tool was made, the core was rotated clockwise, and the flakes, removed in sequence, had a little crescent of cortex (the core's outer surface) on the side. Toth's knapping produced 56 percent flakes with the cortex on the right, and 44 percent left-oriented flakes. A left-handed toolmaker would produce the opposite pattern. Toth has applied these criteria to the similarly made pebble tools from a number of early sites (before 1.5 million years) at Koobi Fora, Kenya, probably made by *Homo habilis*. At seven sites he found that 57 percent of the flakes were right-oriented, and 43 percent left, a pattern almost identical to that produced today.

10. The word "criteria" in the passage is closest in meaning to
 - A. Sandards
 - B. Findings
 - C. Ideas
 - D. Techniques
11. What was the purpose of Toth's toolmaking experiment described in paragraph 6?
 - A. To shape tools that could be used by either hand
 - B. To produce replicas of early tools for display in museums
 - C. To imitate the production of pebble tools from early sites
 - D. To determine which hand made the early tools

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12. What is the author's primary purpose in paragraph 7?
- A. To illustrate the importance of studying the brain
 - B. To demonstrate that human beings are the only mammal to desire fine control of movement
 - C. To contrast the functions of the two hemispheres of the brain
 - D. To demonstrate that right-hand preference has existed for a long time

We all know that many more people today are right-handed than left-handed. Can one trace this same pattern far back in prehistory? (A) Much of the evidence about right hand versus left-hand dominance comes from stencils and prints found in rock shelters in Australia and elsewhere, and in many Ice Age caves in France, Spain, and Tasmania. (B) When a left hand has been stenciled, this implies that the artist was right-handed, and vice versa. (C) Even though the paint was often sprayed on by mouth, one can assume that the dominant hand assisted in the operation. One also has to make the assumption that hands were stenciled palm downward—a left hand stenciled palm upward might of course look as if it were a right hand. (D) Of 158 stencils in the French cave of Gargas, 136 have been identified as left, and only 22 as right; right-handedness was therefore heavily predominant.

13. Directions: Look at the part of the passage that is displayed above. The letters (A), (B), (C), and (D) indicate where the following sentence could be added.

The stencils of hands found in these shelters and caves allow us to draw conclusions about which hand was dominant.

Where would the sentence best fit?

- A. Choice A
- B. Choice B
- C. Choice C
- D. Choice D

14. Directions: An introductory sentence for a brief summary of the passage is provided below. Complete the summary by selecting the THREE answer choices that express the most important ideas in the passage. Some sentences do not belong in the summary because they express ideas that are not presented in the passage or are minor ideas in the passage.

Write your answer choices in the spaces where they belong. You can either write the letter of your answer choice or you can copy the sentence.

1. Several categories of evidence indicate that people have always been predominantly right-handed.
- 2.
- 3.
- 4.

- A. Answer Choices Stencils of right-handed figures are characteristic of cave art in France, Spain, and Tasmania.
- B. The amount of prehistoric art created by right-handed artists indicates that left-handed people were in the minority.
- C. Signs on the skeletal remains of prehistoric figures, including arm-bone size and injury marks, imply that these are the remains of right-handed people.
- D. Neanderthal skeletons often have longer finger bones in the right hand, which is evidence that the right hand was stronger.
- E. Instruments such as spoons, ropes, and pebble tools show signs that indicate they were used or constructed by right-handed people.
- F. Nick Toth, a modern right-handed toolmaker, has shown that prehistoric tools were knapped to fit the right hand.

Vocabulary and Reading comprehension

1. When the settlers of the western United States abandoned their original log cabins, sod houses, and dugouts, they built small, wood-framed dwellings of one or two rooms without a basement. Rooms were usually added as **prosperous** families grew larger. This usually resulted in a series of large, open rooms laid end to end so that each would have an equal amount of sunlight.

The word **prosperous** in the passage is closest in meaning to

- A. Numerous
 - B. Thriving
 - C. Prominent
 - D. Courageous
2. The medical profession is sometimes accused of being more interested in itself than the quality of care it delivers. Many patients feel they don't get the attention they deserve; many see the profession as selfish **to its core**. Doctors rarely agree, as a recent survey comparing their attitudes and that of the public shows. Seventy percent of the public were disappointed in the quality of care; only 35 percent of the doctors agreed.

In stating that the medical profession is selfish **to its core**, the author means that it

- A. is entirely interested only in itself.
 - B. contains a group of bad doctors.
 - C. has wide support among patients.
 - D. includes good and bad physicians.
3. The modern sport of gymnastics was essentially the result of the work of the German Friedrich Jahn, in the early nineteenth century. He invented many of the exercises and some of the apparatus of later gymnastics, such as the parallel bars, the rings, and the horizontal bar. Jahn's work was aimed mainly at strengthening the body. The result of gymnastics training is a well-toned, **limber** body.

The word **limber** in the passage is closest in meaning to

- A. Flexible
- B. Slender
- C. Tiny

D. Disciplined

4. The law of large numbers, popularly known as "the law of averages," is often thought to require that future outcomes balance past outcomes. This is a **fallacy**. A three-digit lottery number has the same probability of being selected every day. The fact that it has not been selected for a given number of days does not increase this probability

The word **fallacy** in the passage is closest in meaning to

- A. Endorsement
 - B. Sufficiency
 - C. Misconception
 - D. Preconception
5. The volcanic areas of southern Guatemala contain some of the nation's most richest soils. However, the northern parts of this region are particularly subject to erosion encouraged by steep slopes and deforestation. Within the Sierra region, heavier rainfall combined with thinner soils on the steep slopes and the **wanton** destruction of forests have led to widespread erosion.

The word **wanton** in the passage is closest in meaning to

- A. Senseless
 - B. Sustaince
 - C. Proportional
 - D. Outlandish
6. From the report released today, it appears that oil tankers suffer their major ----- on their return journeys.
- A. Spills
 - B. Costs
 - C. Repairs
 - D. Drills
 - E. Crews
7. I had my doubts about her when I took her on, but now I'm pleased to say that she has ----- to be a talented executive.
- A. Taken up
 - B. Run over
 - C. Turned out
 - D. Make out
 - E. Carried on
8. The manager who was said to have revealed the plans so as to get financial benefit ----- after the criticism from the shareholders.
- A. Set up
 - B. Stood for
 - C. Stepped down
 - D. Got over
 - E. Broke up

9. Following the bomb explosion in the shopping centre, the police have been warning people to ----
-- any suspicious-looking parcels.
- Rely on
 - Run through
 - Take over
 - Watch out for
 - Send for
10. One of the disadvantages of growing older is that you never seem to have the opportunity to -----
all of the sports you would like to.
- Catch sight of
 - Make room for
 - Lose track of
 - Take part in
 - Set sail to

Grammar

- How long Before Val finally turned up?
 - Have you been waiting
 - Are you waiting
 - You waited
 - Had you been waiting
- Tourists ----- when large numbers of middle-class people ----- to join the more wealthy aristocratic travelers
 - Have originated/had begun
 - Had originated/have begun
 - Could have originated/have begun
 - Originated/began
 - Were originating/are beginning
- The wounded hunter ----- on the ground for almost an hour when, coincidentally, he -----
by another hunter, who must have keen eyes.
 - Has been lying/is spotting
 - Has lain / will be spotted
 - Will have lain / had been spotted
 - Had been laying/was spotted
 - Was lying/spotted
- As the tree was too high to climb, the mischievous boys ----- their ball down only by
throwing sticks at it.
 - Would have knocked
 - Were able to knock
 - Will have to knock
 - May have knock
 - Could have knock
- Certain serious diseases can be successfully treated ----- detected in an initial stage.
 - If

- B. Unless
 - C. Even when
 - D. Before
 - E. After
6. ----- a celebrity arrives in Istanbul, the first question reporters ask them is ----- they like Istanbul.
- A. During/whether
 - B. Every time/how
 - C. Whenever/what
 - D. Until/if
 - E. When/wherever
7. The neutral mutation rate is known ----- widely along human chromosomes, ----- to mutational hot and cold regions.
- A. To be varying/to lead
 - B. Varying/led
 - C. To have varied/being led
 - D. Having varied/having led
 - E. To vary/leading
8. Universities _____ a number of advantages by Athletic teams.
- A. Bring
 - B. Can bring
 - C. Had brought
 - D. Are brought
 - E. Were being brought
9. Despite many obstacles, a history of victories _____ at impressive tennis tournaments, including Wimbledon and the French Open.
- A. Has been had
 - B. Had had
 - C. Is having
 - D. Had
 - E. Will be had
10. You are supposed _____ the cake
- A. To have made
 - B. Making
 - C. To be made
 - D. To have been make
 - E. Having made
11. A lot of people _____ early yesterday morning in a car crash that _____ outside my office.
- A. Have been killed/was happened
 - B. Were killed/happened
 - C. Have killed/had happened
 - D. Killed/happened
 - E. Were killed/was happening
12. They set up a liaison office in East Africa for marketing their goods but now they wish they -- ----- so.
- A. Had not done

- B. Have not done
- C. Would not do
- D. Would not have done
- E. Never do