

## M 英語問題

### 注意

1. 試験開始の指示があるまでこの問題冊子を開いてはいけません。
2. 解答用紙はすべてHBの黒鉛筆またはHBの黒のシャープペンシルで記入することになっています。HBの黒鉛筆・消しゴムを忘れた人は監督に申し出てください。(万年筆・ボールペン・サインペンなどを使用してはいけません。)
3. この問題冊子は16ページまでとなっています。試験開始後、ただちにページ数を確認してください。なお、問題番号はI～Vとなっています。
4. 解答用紙にはすでに受験番号が記入されていますので、出席票の受験番号が、あなたの受験票の番号であるかどうかを確認し、出席票の氏名欄に氏名のみを記入してください。なお、出席票は切り離さないでください。
5. 解答は解答用紙の指定された解答欄に記入し、その他の部分には何も書いてはいけません。
6. 解答用紙を折り曲げたり、破ったり、傷つけたりしないように注意してください。
7. この問題冊子は持ち帰ってください。

#### マーク・センス法についての注意

マーク・センス法とは、鉛筆でマークした部分を機械が直接よみとって採点する方法です。

1. マークは、下記の記入例のようにHBの黒鉛筆で枠の中をぬり残さず濃くぬりつぶしてください。
2. 1つのマーク欄には1つしかマークしてはいけません。
3. 訂正する場合は消しゴムでよく消し、消しきずはきれいに取り除いてください。

マーク記入例：

A	1	2	3	4	5
	○	○	●	○	○

 (3と解答する場合)

I . 次の文を読み、下記の1～10それぞれに続くものとして、本文の内容ともっともよく合致するものを、各イ～ニから1つずつ選び、その記号を解答用紙の所定欄にマークせよ。

In a famous YouTube video, a dog named Tank sure does look guilty when his owner comes home to find trash scattered everywhere, and the trash can lid stuck on Tank's head. But does the dog really know he misbehaved, or is he just trying to look submissive because his owner is yelling at him? In another new video from a BBC television series, Adelle penguins are seen gathering stones to build their nests. One penguin, in a cautious and cunning manner, steals a stone from his neighbor's nest every time the neighbor goes out gathering. Does the penguin thief know its actions are wrong?

These are some of the scenarios that interest ethologists, or scientists who study animal behavior. For years, these scientists ruled out the possibility that animals might have a sense of morality—that they know right from wrong. Lately, though, the tide is turning.

“People used to like to make that clear division between human and non-human animals,” said ethologist Marc Bekoff. “But there's just no doubt that the scientific evidence for animal morality is accumulating as more and more animals are studied.” Bekoff is a professor of ecology and evolutionary biology at the University of Colorado, Boulder. His extensive field research has led him to believe that morality is an evolved trait, rather than a system created by humans, and that it evolved early in the history of \*mammals. “It has only been observed in certain species, because it really hasn't been studied extensively, but I would expect that moral sentiments would be fairly widespread among mammals,” Bekoff said.

Much of Bekoff's research has focused on wolves and coyotes—both of which live in groups governed by strict rules. Bekoff has observed acts of sharing, tolerance, forgiveness, and fairness among wolves and coyotes, and says many of these moral sentiments are evident in the way the animals play with one another.

Canids (animals in the dog family) learn social codes of conduct at a young age through play. They first invite one another to engage in rough play using a “play bow”: They lie down on their front legs while standing on their back legs. Even when this is followed by aggressive actions such as growling and snarling, the

bow makes their playful intentions clear. During play, dominant members of the pack will engage in role reversal with weaker ones, rolling over on their backs to give low-status playmates a chance at “winning,” as well as lessening the force of their bites to prevent injury. If one playmate accidentally bites another too hard, it “apologizes,” play-bowing again to show that it is still playing, despite the slip-up.

Breaking these rules of engagement—or other rules, such as taking more than one’s fair share of food—is serious business among wolves and coyotes. “There is a consequence of being labeled a cheater,” Bekoff said. Others stop bonding with the “immoral” pack member, and eventually it wanders away from the group, usually resulting in an early death because it no longer receives the benefits of pack living.

Dogs evolved from wolves and seem to have maintained a wolfish sense of fairness. “They do have a sense of right and wrong,” said Bekoff. “You see it when they play at the dog park, for example; when a dog asks another dog to play—even if it is larger and may be dominant—it’s going to be honest about it. It knows it would be unfair to ask a dog to play and then beat it up or try to mate with it.”

Furthermore, experiments at the University of Vienna have also found that dogs become upset by unfair treatment by humans: When asked to shake hands, the dogs in the study were happy to oblige at first regardless of whether they were given treats or not. But the dogs’ enthusiasm for the trick decreased when they saw other dogs being rewarded with food after a handshake, but received nothing themselves. The ignored dogs also started showing signs of distress, such as licking or scratching. The researchers argued that these stress signifiers proved the dogs were upset about being treated unfairly—not just sad about missing out on a treat.

Bekoff’s book *Wild Justice* lists evidence of seemingly moral sentiments in many other species too, including whales, crows, bats, elephants, chimpanzees, and even rats. For example, experiments with rats have shown that they will not eat if they know that doing so will inflict pain on other rats. When the hungry rats were given access to food, but could see that taking it caused a second group of rats to receive an electric shock, the rats stopped eating rather than inflict pain on the group.

So what of Tank the dog, and the thieving penguin? Ethologists say a sense of right and wrong may be evident in the former animal, but not the latter. “I do

think dogs feel guilt,” Bekoff said. Knowing the difference between right and wrong is vital for canids to successfully bond with other pack members, he said—and dogs think their human owners are in their pack.

As for the penguin, Bekoff has observed thieving penguins in the wild, and did not get the sense that they knew stealing stones was wrong. Crows who steal food, on the other hand, do know they’re misbehaving, Bekoff said. The distinction arises from the different way that other crows and penguins react to the thievery.

“In the crow situation, their social organization depends on treating each other fairly and not stealing, so they punish animals that have stolen food and treat them different from ones that haven’t. In the penguin situation, they don’t do that. Penguins that steal are not excluded by their group,” he said. Thus there’s no moral code of conduct being breached in the case of the penguins, and in the video, the penguin thief steals cunningly not because it thinks its actions are wrong, but rather because that’s simply the best way to get its neighbor’s stones, he explained.

Animal morality is a tricky business, and more research is needed to discover when and in what forms it exists. That said, “the little we know now about the moral behavior of animals really leads us to conclude that it’s much more developed than we previously gave them credit for,” Bekoff said. “We are not the sole occupants of the moral arena—and it’s unlikely that we would be, given what we know about evolution.”

\*mammals : 哺乳類

1. The author introduces the examples of Tank the dog and the Adelie penguins
  - イ. to suggest that animals do bad things without meaning to.
  - ロ. to compare two different types of animal behavior.
  - ハ. to ask whether animals have a sense of morality.
  - ニ. to show that animals are more clever than we think.

2. Marc Bekoff's research has focused on animals that
- イ. are typically selfish.
  - ロ. have clear rules of conduct.
  - ハ. live in isolation from one another.
  - ニ. have little time for play behavior.
3. Canids use the "play bow" for all the following purposes EXCEPT
- イ. to apologize for rough behavior.
  - ロ. to indicate lower status.
  - ハ. to invite one another to play.
  - ニ. to show playful intentions.
4. The underlined word "slip-up" (paragraph 5) is closest in meaning to
- イ. danger.
  - ロ. doubt.
  - ハ. friendship.
  - ニ. mistake.
5. Researchers at the University of Vienna argued that their experiments provided evidence for morality in dogs by showing that
- イ. dogs were willing to shake hands without a treat at first.
  - ロ. dogs who did not get treats when others did became stressed.
  - ハ. dogs were willing to continue shaking hands after getting a treat.
  - ニ. dogs who did not get treats when others did still shook hands.
6. According to Marc Bekoff,
- イ. all animals have moral sentiments.
  - ロ. dogs have a higher sense of morality than wolves.
  - ハ. penguins learn a moral code of conduct only at an old age.
  - ニ. rats can be considerate towards other rats.

7. Bekoff thinks a key question in deciding if an animal species has a sense of morality is whether or not they
- イ. punish members who break the rules.
  - ロ. show signs of guilt.
  - ハ. try to hide their bad behavior.
  - ニ. act aggressively to animals outside their group.
8. The underlined word "breached" (paragraph 12) is closest in meaning to
- イ. created.
  - ロ. hidden.
  - ハ. suggested.
  - ニ. violated.
9. The passage suggests that morality in non-human animals is
- イ. a behavior that evolved recently.
  - ロ. more common than previously thought.
  - ハ. fundamentally different from morality in humans.
  - ニ. not suitable as an area of scientific research.
10. The most appropriate title for this passage is
- イ. What is Unique about Human Morality?
  - ロ. The Wonder of Animal Behaviors.
  - ハ. Do Animals Know Right from Wrong?
  - ニ. Recent Research on Animal Behavior.

II. 次の文を読み、下記の1～8それぞれに続くものとして、本文の内容ともっともよく合致するものを、各イ～ニから1つずつ選び、その記号を解答用紙の所定欄にマークせよ。

John Snow, one of the founding fathers of \*epidemiology, was born in 1813. His reputation after his death is much greater than that which he enjoyed during his life.

Snow's epidemiological fame rests primarily on the second edition of his *On the Mode of Communication of Cholera* (1855), which rests, in turn, on his detailed mapping of the disease in London and creative use of figures to show how cholera is transmitted. He was a self-disciplined man who never married and died young; but his life was one of discipline, ambition, and honest effort.

London suffered three severe cholera epidemics during Snow's lifetime, in 1832, 1848-49, and 1853-54. In the first edition of *On the Mode of Communication of Cholera*, published 1849, Snow extended arguments he had long held: that cholera is a specific disease spread by contaminated water. At the time it was generally thought to be a non-specific fever transmitted through "miasma," a thick mist in the air. Far from claiming that his ideas were original, Snow searched the literature thoroughly and pushed acquaintances such as the epidemiologist William Farr hard to confirm his findings. Snow found some new facts, but in many instances he also offered his own interpretations of the facts that colleagues presented to him.

That foul water was the primary mode of cholera's spread was his constant belief, and during the 1854 epidemic Snow conducted two studies to test his theory that would form the basis of his book's famous second edition. The better-known study focused on the Soho outbreak in late August and early September, which centered around a water pump on Broad Street. Some 600 people died after drinking water from this source. Snow used government death-registration data and house-to-house inquiries to map the victims' residences, showing their proximity to the pump. In a number of instances he was also able to confirm that victims had drunk water from the well, into which an open sewer drained. As in much of London in those days, many houses in the area were not yet connected to central water or sewage systems.

Snow convinced local officials to remove the pump handle—although the

gesture was probably symbolic, because the epidemic was already subsiding—so that people could no longer use the well. He further made his case by showing that several people who lived elsewhere in London but had also drunk water from the well had come down with cholera. By contrast, only a few residents at a local poorhouse with its own well suffered, despite the overcrowding of their facilities. Employees of a nearby brewery were also essentially immune from the epidemic. One of the perks of their job was an allowance of free beer, so they didn't bother with water. Snow would have found this conclusion ironic as he was a one-time honorary secretary of the Medical Temperance Society which advocated abstaining from drinking.

The second of Snow's epidemiological studies of 1854 may be referenced less often but was actually even more impressive. Back in 1848, Snow had blamed two London water companies—one in Lambeth, one in Southwark and Vauxhall—for servicing their south London clients with contaminated water. Between the epidemics of that year and 1854, the Lambeth company had switched its source from the Thames in central London to Thames Ditton, an upstream village some 12 miles away, and begun to filter its water. In 1854, Snow began the hard task of tracing the source of the contaminated water.

Some 300,000 people, from all occupations, social standing, ages, and genders were involved. Getting the relative death rates from cholera for each company was not easy: in many instances the people Snow questioned did not remember which company sold them water, and often houses on the same street were connected to one or the other supplier, almost at random. Snow's revelations encouraged Farr, who was also keeper of statistics at the General Register Office, to use his office to further the analysis. Both Snow and Farr found that householders drawing water from the Southwark and Vauxhall company were many times more likely to die from cholera.

Snow could not identify any specific agent causing the disease, but he argued that the material cause of the disease acted like a living organism, because it could reproduce. Terming it "organized matter," Snow interpreted its <sup>\*\*</sup>incubation period as the time it took for the initial dose to reproduce sufficiently to cause actual disease. He never knew of the Italian scientist Filippo Pacini's description of the



comma-shaped bacillus, the bacteria which causes cholera, during an 1854 outbreak of the disease in Florence. Snow had died by the time that germ theory became a practical proposition thanks to Louis Pasteur, Robert Koch (generally credited for discovering the cholera bacillus), and many others.

\*epidemiology : 疫学

\*\*incubation period : 潜伏期

1. Many people in the mid-19<sup>th</sup> century believed that cholera was
  - イ. spread by breathing in dirty air.
  - ロ. caused by drinking dirty water.
  - ハ. not a transmittable disease.
  - ニ. related to eating contaminated food.
  
2. In his first study conducted in 1854, Snow showed that
  - イ. people in overcrowded areas were more likely to be affected.
  - ロ. the majority of people who suffered from cholera were poor.
  - ハ. one water source had become contaminated.
  - ニ. alcohol killed bacteria.
  
3. The underlined word "subsiding" (paragraph 5) is closest in meaning to
  - イ. expanding.
  - ロ. diminishing.
  - ハ. well established.
  - ニ. out of control.
  
4. The underlined word "perks" (paragraph 5) is closest in meaning to
  - イ. dangers.
  - ロ. disadvantages.
  - ハ. liabilities.
  - ニ. benefits.

5. His second study was difficult to carry out because
- イ. it was not easy to identify which company supplied water to which household.
  - ロ. many households got water from more than one company.
  - ハ. there was no support from other researchers.
  - ニ. numerous wells were contaminated throughout the city.
6. In regard to the two water companies
- イ. one had kept record of its customers.
  - ロ. both had changed water sources.
  - ハ. one had more victims than the other.
  - ニ. neither had attempted to purify the water.
7. The passage suggests that
- イ. Snow is credited with discovery of the cholera bacteria.
  - ロ. Snow's aim was to prove that cholera was carried by water.
  - ハ. Snow died of cholera.
  - ニ. Snow's research was further developed by Filippo Pacini.
8. The most appropriate title for this passage is
- イ. A Pioneer in the Study of Infectious Diseases.
  - ロ. The Outbreaks of Cholera in 19<sup>th</sup> Century London.
  - ハ. The Cause of Cholera, Water or Bacteria.
  - ニ. Scientists' Struggles against Infectious Diseases.

Ⅲ. 次の1～6それぞれの空所を補うのにもっとも適当なものを、各イ～ニから1つずつ選び、その記号を解答用紙の所定欄にマークせよ。

1. A: How's your school project going?

B: Not very well. I haven't come up with an idea yet.

A: (      )

B: Thanks, but we're supposed to do these projects independently.

イ. You still have plenty of time.

ロ. I can give you some help.

ハ. You should push yourself a little harder.

ニ. You can find a lot of ideas on the Internet.

2. A: Being in high school is really hard.

B: What's so hard about it?

A: (      ) You always have to worry about what you wear and who you hang out with.

B: Don't worry too much. You'll figure out how to deal with it.

イ. I'm not keeping up with my schoolwork.

ロ. I feel so much social pressure.

ハ. I'm not getting enough sleep.

ニ. I don't get along with my teachers.

3. A: Did you hear the weather forecast? It's going to rain this weekend.

B: That's too bad. We were planning to go camping on Sunday.

A: (      )

B: But I've already rented camping equipment for the weekend.

イ. It might stop raining around noon.

ロ. Weather forecasts aren't always accurate.

ハ. You should postpone it until next week.

ニ. Your children will be very disappointed.

4. A: What was the first year of university like for you?

B: Things could not have worked out any better.

A: (       )

B: It's hard to name one thing.

イ. Did you make many friends?

ロ. What was your schedule like?

ハ. Did you miss high school?

ニ. What did you enjoy most?

5. A: Would you like to go to a soccer game with us Friday night?

B: It sounds exciting, but (       )

A: What's wrong? You're a big soccer fan.

B: My parents work late on Fridays, so I should take care of my little brothers.

イ. I heard it's all sold out.

ロ. I'm not that crazy about sports.

ハ. I think I'll pass.

ニ. I'll be away then.

6. A: It's four o'clock in the morning. What are you doing up so late?

B: I'm studying for my math exam.

A: But the exam is in the morning. (       )

B: You're right, but I just want to go over this textbook one more time.

イ. You went to a party last night.

ロ. You should keep on studying.

ハ. You are not going to make it.

ニ. You should get some sleep.

IV. 次の1～8それぞれの空所を補うのもっとも適当なものを、各イ～ニから1つずつ選び、その記号を解答用紙の所定欄にマークせよ。

1. I'm sorry if I offended you at the party last night. I got carried ( ).

イ. around                      ロ. away                      ハ. off                      ニ. out

2. You must tell me how yesterday's meeting ( ) out.

イ. ended                      ロ. made                      ハ. stood                      ニ. turned

3. I had ( ) difficulty trying to convince him to complete his studies.

イ. considerable              ロ. outstanding              ハ. primary                      ニ. sufficient

4. Unfamiliar ( ) I was with classical music, I was impressed by the orchestra's performance of Beethoven's 6<sup>th</sup> symphony last night.

イ. although                      ロ. as                      ハ. how                      ニ. while

5. I'm very busy right now, but if nobody else wants to work on this new project, I'd be ( ) to volunteer.

イ. curious                      ロ. reluctant                      ハ. satisfied                      ニ. willing

6. Sunday's loss to the Tigers was a great disappointment to many Lions fans who were ( ) out for a place in the championship.

イ. giving                      ロ. holding                      ハ. putting                      ニ. talking

7. Before reaching a decision on the student fee increase, the university must listen to all students ( ).

イ. attended                      ロ. concerned                      ハ. responsible                      ニ. voted

8. Although I didn't think I'd done anything wrong, my teacher ( ) me apologize to the class for my behavior.

イ. forced                      ロ. got                      ハ. let                      ニ. made

V. 次の空所(1)～(6)それぞれにもっとも適当な1語を補い、英文を完成せよ。解答は解答用紙の所定欄にしるせ。

Mayor Sarah Wilkins  
316 Municipal Drive  
Oakland, California

November 17, 2013

Dear Mayor Wilkins,

I am writing in ( 1 ) of the proposal to make all of the local parks and recreational areas in our community 100% smoke-free. There are many ( 2 ) to such a policy, including cleaner air in our parks, lower fire risk, and less trash. Scientific studies have shown that secondhand smoke from cigarettes can be just as harmful to people outdoors as indoors, and in my opinion a public park is the last place we ( 3 ) have to worry about risks from cigarettes.

You are no doubt aware that smoke-free parks in California are very popular. More than 100 communities in our state have local laws restricting cigarette smoking in parks. Plus, the state's Smoke-Free Air Act already ( 4 ) public parks within a 2-mile radius of any school to be 100% smoke-free.

Smoke-free parks would help to change social perceptions regarding the acceptance of smoking behavior. This is especially important since parks are frequented by young people, and 90% of smokers start before the ( 5 ) of 18. Creating smoke-free parks for our youth sends a positive message about healthful living.

If possible I would like to meet you ( 6 ) person to discuss ways to improve the parks in our community. Please feel free to contact me at 732-8941, and we can arrange a meeting time that is convenient for you. Thank you so much for your time and consideration of this important public health measure.

Sincerely,  
Margaret Johnson

【以下余白】

