

2019年度

I 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20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、消しきら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。

It's easy to assume, with bird names, that we know what they mean, and often that assumption is quite correct. Woodpeckers peck wood, bee-eaters feed on bees, and whitethroats are indeed white around the neck. Other names seem almost wilfully obscure: what on earth does the name puffin mean? Or hobby? Why are turtle doves named after reptiles? And don't get me started on some of the strange bird names found around the world—from oleaginous hemispingus to zitting cisticola, leaflove to hardhead, and bananaquit to bearded mountaineer. Yet, as I discovered when I was researching my new book on the origins of bird names, if you dig deep enough, you unearth all sorts of fascinating stories about what the names mean, where they came from and, especially, the men and women who created them.

The origin of some names may, at first, seem obvious, yet are not quite as straightforward as they appear. Take the simplest of all English bird names: blackbird. It's a bird, and it's black. But what about the crow, rook, raven and jackdaw? All of these would have been very familiar to our ancestors, and all appear—at least from a distance—to be black in color. So why was just one species singled out as the “blackbird?”

The reason for this apparent anomaly is that, until the late Middle Ages, birds were not called “birds” at all, but fowls—as in Geoffrey Chaucer's poem *The Parliament of Fowls*. The word bird (originally the Anglo-Saxon *brid*), referred only to young fowls, or chicks. Then, sometime around the time Chaucer was writing, this meaning began to shift. From then on, although “fowl” was still used for larger birds such as members of the crow family, “bird” became the norm for all smaller birds, including the blackbird. So, at the time it was named, this really was the only truly “black bird.”

Many of our oldest bird names—including raven, rook and crow—are onomatopoeic: they imitate the sound made by the bird itself. Cuckoo, chiffchaff and kittiwake are other well-known examples. Far less obvious ones include nightjar (from the “churring” sound made by this nocturnal bird), bittern (from its deep, booming call), and the turtle dove mentioned above. “Turtle” is a corruption of the

bird's soft "tur-tur" call, so has nothing to do with the aquatic reptile.

Other ancient bird names relate to a bird's appearance: its size, color, shape, or distinctive markings. Again, some are obvious: such as great spotted woodpecker, blackcap, long-tailed tit, and collared dove. But with others it takes some linguistic detective work to uncover their true meaning. Take three familiar birds: the yellowhammer, redstart, and wheatear. All three names superficially make sense, yet as soon as you look more closely, they become problematic. After all, the yellowhammer doesn't have an especially loud or drum-like song, redstarts are not noticeably jumpy, and I've certainly never seen a wheatear in a field of wheat.

The reason these names appear puzzling is down to one of the most important events in British history: the Norman Conquest. Perhaps the greatest change that resulted from this invasion was in our everyday language: within a century or so, Anglo-Saxon had merged with Norman French to create a new, hybrid tongue known as Middle English—the forerunner of the way we speak today. But as the old language fell into disuse, some of its words no longer made any sense. So, by a process called false etymology, people made up new versions, which sounded reasonable, even if their original meaning had been lost. One famous example in plants, the name "dandelion," is in fact a corruption of the French *dent de lion* (meaning lion's tooth, referring to the shape of the plant's leaves).

The same happened with bird names. Thus, the Anglo-Saxon "yellow ammer" (from the German word for another bird name, bunting) became yellowhammer; "red steort" (meaning red tail) turned into redstart; and "wheteres"—literally white bottom, changed into wheatear. Norman French also had a major influence on the names of ducks ("mallard" and "wigeon"), game birds ("pheasant" and "partridge"), and birds of prey ("peregrine" and "hobby"). What these all have in common is that they were important to the Norman nobles—either as food, or for hunting and sport—so their French names took precedence over the older, English ones. "Hobby," for example, comes from the Old French verb *hober*—meaning to jump about—and refers to this falcon's dashing, acrobatic flight.

The name "hobby" also played a role in the naming of the table-top football game Subbuteo. The story goes that when the game's inventor, Peter Adolph, tried to register his idea at the patent office, he wanted to call it Hobby. When an official

objected, he cleverly substituted the Latin name of his favourite bird, *Falco subbuteo*, instead.

From the 18th century onwards, existing names were codified by professional *ornithologists who also coined new ones, such as “black-tailed godwit” or “white-fronted goose.” A trend also arose for naming birds after people: sometimes those who had discovered the species, such as George Montagu (“Montagu’s harrier”). Birds were also named after polar explorers James Clark Ross and Sir John Franklin (“Ross’s and Franklin’s gulls”), and the political radical Thomas Bewick (“Bewick’s swan”). As is to be expected, given the male-dominated nature of society at the time, only a handful are named after women. One notable exception is Winifred Moreau, who during the 1930s studied the birds found in Tanzania’s Uluguru mountains, with her ornithologist husband, Reg, and after whom one of the world’s rarest birds—“Mrs Moreau’s warbler”—is named.

The naming of birds is ultimately a purely human impulse: the birds themselves are, of course, completely unaware of what we choose to call them. Yet, without the wondrous variety of ornithological names, I believe that our world would be a far poorer place. Ultimately, the names we have bestowed on birds down the ages reflect key aspects of our own lives: our primitive superstitions, myths and legends, invasions and conquests, changes in language, careful scientific observation, our love of sound, color and pattern, and a sense of place. Last, but certainly not least, some reflect the extraordinary achievements of the men and women after whom they were called—including, of course, Winifred Moreau.

* ornithologists : 鳥類学者

1. The main idea of the first paragraph is that
 - イ. a great variety of birds exist in the world.
 - ロ. bird names often have interesting histories.
 - ハ. we can enjoy birds without understanding their names.
 - ニ. bird names are easy to understand.

2. The underlined word “anomaly” (paragraph 3) is closest in meaning to
- イ. decision.
 - ロ. history.
 - ハ. meaning.
 - ニ. peculiarity.
3. In the late Middle Ages,
- イ. “fowl” meant “chick” rather than “bird.”
 - ロ. “fowl” and “bird” were used interchangeably.
 - ハ. the meaning of “bird” began to change.
 - ニ. a poem by Chaucer helped change the meaning of “fowl.”
4. The yellowhammer, redstart, and wheatear all have names that
- イ. originated in Anglo-Saxon English.
 - ロ. even linguists can't understand.
 - ハ. suggest obvious features of the birds.
 - ニ. have no original meaning.
5. In the century after the Norman Conquest,
- イ. Middle English went into decline.
 - ロ. Anglo-Saxon came to be called Middle English.
 - ハ. Norman French combined with Anglo-Saxon.
 - ニ. modern English came into existence.
6. The author refers to “dandelion” (paragraph 6) as an example of how
- イ. plant names are always changing.
 - ロ. words whose meaning are lost are kept by their sound.
 - ハ. plant names are similar to bird names.
 - ニ. English influenced French.

7. The underlined word “coined” (paragraph 9) is closest in meaning to
- イ. challenged.
 - ロ. discarded.
 - ハ. discovered.
 - ニ. invented.
8. The passage mentions all the following sources of bird names EXCEPT
- イ. the sound made by the bird.
 - ロ. the bird’s appearance.
 - ハ. the person who discovered the bird.
 - ニ. where the bird lives.
9. One theme of the passage is that bird names
- イ. tell us about our own cultural history.
 - ロ. are difficult to investigate.
 - ハ. all reflect a similar linguistic pattern.
 - ニ. are more diverse than the names of other animals.
10. The most appropriate title for this passage is
- イ. The Fascinating Mystery of Birds.
 - ロ. How Birds Shaped Human Culture.
 - ハ. The Complex Origins of Bird Names.
 - ニ. Unusual Birds in History.

II. 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。

When it comes to our self-understanding, we have been held back by our belief that the mind and body are fundamentally separate things. We assume that the human mind is a “thinking thing” composed of an immaterial substance. The body, in contrast, is a material substance, just a mortal machine that bleeds. We tend to think that mental events have mental causes and that physical events have physical causes. (If your back is in pain, there’s something wrong with your back.) Our popular dualistic belief is why we do not immediately think of treating depression with physical exercise or a headache with meditation.

In recent years, modern neuroscience has demolished the dualistic distinctions. It has done this mostly by showing how the body is not a mere power plant to the brain, but rather shapes every aspect of conscious experience. The bacteria in your intestines, for instance, seem to influence your mood, while that feeling of fear probably began as a slightly elevated heart rate. Our memory is improved when it’s connected to physical movement and the sweat glands in your palm can anticipate your gambling mistakes long before the brain catches up. As the neuroscientist Antonio Damasio has written, “The body contributes more than life support. It contributes a content that is part and parcel of the workings of the normal mind.”

This argument appears convincing. And yet, even if one acknowledges the subtle powers of the body—the soul is surprisingly physical—there is still one realm in which dualistic belief is taken for granted: athletic performance. When we look at our best athletes, we appreciate them as physical models, blessed with better flesh than the rest of us. They must have bigger hearts and more fast-twitch muscle fibers; highly efficient lungs and lower resting pulses. We ignore their “thinking thing” and focus instead on their body, “the thing that exists.”

But even here the body/mind distinction proves illusory. Consider a new paper by Daniel Longman, Jay Stock, and Jonathan Wells. Their subjects were sixty-two male rowers from the University of Cambridge. They were all in excellent shape. On their first visit to the lab, the men rowed as intensely as possible for three minutes as the scientists tracked their total power output. On their second

visit, the men were given an arduous mental task. Seventy-five words were briefly flashed on a screen; their job was to remember as many of them as possible. The last visit to the lab combined these two measures. While the men worked up a sweat on the rowing machine, they were simultaneously shown a new set of words and asked to remember them. As expected, combining the tasks led to a dropoff in performance: the men remembered fewer words and generated less power on the rowing machine.

But here's the interesting part: the decline was not symmetric, with physical performance suffering a dropoff that was roughly 25 percent greater than mental performance. What accounts for this lack of symmetry? The scientists suggest that it's rooted in the scarcity of blood sugar and oxygen, as the brain and body compete for the same finite resources. And since we are thinking creatures—thinking is our competitive advantage—it only makes sense that we'd privilege the brain over our muscles.

The larger lesson is that our thoughts and body are not separate systems—they are deeply interconnected. Those rowers didn't perform worse because their muscles were run down. Rather, they had less physical power because their selfish brain decided to feed itself first. This means that the best athletes don't just have better bodies—they also have minds that don't hold them back.

Such research adds to the evidence for the so-called Central Governor theory of physical endurance. Most closely associated with Timothy Noakes, now an emeritus professor at the University of Cape Town, the Central Governor theory argues that the feeling of tiredness is primarily caused by the brain, and not the body. As Noakes points out, in the final stages of a race, up to 65 percent of muscle fibers in the leg remain inactive. In addition, levels of ATP—the molecule used to transport energy within our cells—almost never fall below 60 percent of their resting value. This suggests that we still have plenty of energy left, even when the body feels exhausted. The Central Governor is just too scared to use it.

It's a simple idea with radical implications. After all, we've assumed for nearly a century that our physical limits were largely reducible to the laws of muscular chemistry. (In the 1920s, the British physiologist and Nobel laureate Archibald Hill began writing about the effect of "oxygen debt" and the accumulation

of lactic acid during intense exercise.) Noakes, however, argues that the reality is far more complicated, and that our sense of tiredness is a subjective mental construct, based on countless variables, from the temperature of the skin to the cheers of the crowd. “I am not saying that what takes place in the muscles is irrelevant,” Noakes writes in his autobiography, *Challenging Beliefs*. “What I am saying is that what takes place physiologically in the muscles is not what causes tiredness.”

And this brings us back to our dualistic belief. After all, unless you admit the enormous mental component of physical performance you won't be able to train effectively. You'll be focused on *VO2 max and **lactate concentrations—highly imperfect measures at best—when you should be building up the threshold of your Central Governor.

So how does one train the Central Governor? Holden Macrae, professor of Sports Medicine at Pepperdine University, gave endurance athletes a tedious mental chore for 30 minutes. Once their brain was sufficiently run down, Macrae then had them perform a difficult cycling workout. He found that the power output of the mentally tired athletes was way lower than the non-tired. “It didn't matter that their bodies were fresh. Their brains were tired, and that shaped their performance,” he told me.

Macrae argues that these findings have practical implications for training. If elite athletes are looking to push the boundaries of their endurance, then they should begin their physical training *after* a brain workout. “Because you are stressing the mind and the body at the same time, you are forcing yourself to write a new software program,” he says. “It's the same logic as high-altitude training, only you don't have to go anywhere. You just have to do something boring first.”

The appeal of the dualistic belief is inseparable from the fact that it *feels* true; the body and mind seem like such separate entities. But one of the profound potentials of modern neuroscience is the way it can falsify our longstanding assumptions about human nature. You are not your brain, and your body is not just a body; the soul and the flesh have an interpenetrable relationship. Once we understand that, we can find ways to get more out of both, or at least get in a better workout.

*VO2 max : 最大酸素有効量

**lactate : 乳酸塩

1. The main purpose of the first paragraph is to
 - イ. show how the dualistic viewpoint has changed.
 - ロ. describe how dualistic belief dominates our thinking.
 - ハ. point out the mistake of dualistic belief.
 - ニ. explain what makes humans unique.

2. The passage suggests that most people
 - イ. live as if dualistic belief were true.
 - ロ. understand dualistic belief best when they do sports.
 - ハ. now realize that dualistic belief is wrong.
 - ニ. disagree with the findings of neuroscience.

3. The underlined word "illusory" (paragraph 4) is closest in meaning to
 - イ. abstract.
 - ロ. certain.
 - ハ. dangerous.
 - ニ. false.

4. The underlined word "arduous" (paragraph 4) is closest in meaning to
 - イ. awesome.
 - ロ. easy.
 - ハ. exhausting.
 - ニ. unclear.

5. In the study by Daniel Longman, Jay Stock, and Jonathan Wells, when participants did a physical task and a mental task at the same time, their performance on
- イ. both tasks stayed the same.
 - ロ. the physical task declined more.
 - ハ. both tasks improved.
 - ニ. the mental task improved more.
6. The Central Governor theory of physical endurance holds that
- イ. tiredness depends mainly on our thoughts.
 - ロ. the laws of muscular chemistry determine athletic performance.
 - ハ. most athletes know how to compete at their highest level.
 - ニ. mind and body are separate systems.
7. Giving athletes a mental task before a physical workout is like high-altitude training (paragraph 11), because in both cases the athlete
- イ. gets mentally ready for physical exertion.
 - ロ. can rely on computer software to measure performance.
 - ハ. gets a boost of energy from unfamiliar surroundings.
 - ニ. has to adapt to difficult conditions.
8. This passage suggests that athletes
- イ. do not need as much training as they think they do.
 - ロ. have been limited by dualist thinking.
 - ハ. are a good example of the dualist approach to mind and body.
 - ニ. need to understand dualist ideas to do their best.
9. The author would most likely agree that modern neuroscience
- イ. can teach us about the brain, but not the mind.
 - ロ. supports the basic ideas of dualist thinking.
 - ハ. can help us achieve our potential as human beings.
 - ニ. has a critical view of human nature.

10. The most appropriate title for this passage is

- イ. The Training Secrets of Elite Athletes.
- ロ. The Central Governor: How to Live a Better Life.
- ハ. Recent Research on the Neuroscience of Tiredness.
- ニ. Dualistic Thinking and Athletic Performance: A Re-evaluation.

Ⅲ. 次の文1～9は、いずれもある単語が欠けているため、文法的に正しい文章になっていない。それぞれの文を正しい文章とするために補うのもっとも適当な1語を、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. Because Richard is a good student, he bound to pass the entrance exam this February.

イ. coming ロ. in ハ. is ニ. that

2. We often use word “would” in sentences with “if,” because we use “would” when we imagine a situation or action.

イ. a ロ. always ハ. the ニ. word

3. When Frank went to Boston couple of years ago, he stayed with his friend Toby, who had been living there only a short time but knew the city well.

イ. a ロ. before ハ. on ニ. the

4. Kate was on her hands and knees she was looking for a tiny button that she had dropped.

イ. although ロ. because ハ. hence ニ. where

5. Plans to build a new concert hall have held up due to financial problems.

イ. because ロ. been ハ. in ニ. of

6. What discouraged Stella from applying the job was its low salary.

イ. for ロ. in ハ. on ニ. up

7. I have no idea who Hanako Hamada is. I've never heard her.

イ. before ロ. of ハ. out ニ. to

8. I rang the switchboard and asked if they could put me through to the person whom I could make a complaint.

イ. at ロ. for ハ. on ニ. to

9. He was desperate to play down the problem, not to save face but also to spare you any embarrassment.

イ. all

ロ. every

ハ. only

ニ. same

IV. 次の空所(1)～(7)を補うのにもっとも適当なものを、それぞれ対応する各イ～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。

A. [Outside a Movie Theatre]

Abigail: Well, wasn't that movie something! I'm really glad we went.

Brittany: Yes. And we were so lucky to get the Ladies' Day discount, too. Nice timing.

Abigail: Exactly. Oh... the dancing was amazing! The way they moved in perfect unison on top of all those cars... Wow!

Brittany: I agree. Did you know that those two actors could dance?

Abigail: No, I didn't. (1).

Brittany: Really, me too! I especially liked the main actor. She was so intelligent-looking. (2).

Abigail: Well, I was. She was stunning in every scene. If they give an award for that, then her designer certainly is deserving.

- (1) イ. I've seen them dance in other movies
ロ. The music was horrible though
ハ. And I'm a big fan of them both
ニ. I used to dance during my high school days
- (2) イ. But I wasn't impressed with her fashion
ロ. She wins awards almost every year for best fashion
ハ. She starred with him in another film last year
ニ. I dream about wearing her dresses

B. [Chatting with a Friend]

Nancy: I cannot believe you volunteer at a hospital while you have all these tasks to do at home. And with your husband sick, things must be very difficult for you!

Gretta: It's not easy. And these days, I also visit my mother three times a week. (3), and there are no shops near her house. She's still confident, but it's dangerous at her age.

Nancy: You have so many responsibilities. That's what I mean. How are you able to take on hospital patients on top of all that?

Gretta: Actually, the work allows me to unwind. It gives me a good excuse to get out of the house sometimes. It's hard to stay at home with my husband all the time, no matter how much I love him!

Nancy: (4)?

Gretta: No. I wear a mask and I have a strong constitution. And the work is not so hard. Actually, chatting with the patients is just as good for me as it is for them!

(3) ㄱ. She wouldn't eat anything if I didn't help her

ㄴ. She could probably make it on her own

ㄷ. She can't drive on her own

ㄹ. She doesn't like shopping by herself

(4) ㄱ. Don't you get stressed out doing all those things

ㄴ. Have you ever thought of infecting other patients

ㄷ. Is your husband in the hospital at the moment

ㄹ. But aren't you afraid of catching something

C. [Visiting a Relative with a Cat]

Aaron: Aunt Marianne, you never told me you had a cat!

Marianne: Oh, is that a problem? It just didn't occur to me to tell you, or that you would have minded.

Aaron: It is a problem. I have a cat allergy. What should I do? I can't stay here tonight. Maybe I should go look for a hotel around here.

Marianne: I could put the cat outdoors for the night. (5). It's only when I come home at night that I let her in.

Aaron: No, no. The house is full of cat hair anyway. It's in the air. Oh, no... my throat is already starting to hurt. Soon I'll start to cough and get watery eyes.

Marianne: Here. (6) It's one of those three-dimensional ones, with space in front of the mouth to make it easy to breathe. It's supposed to keep out pollen and dust and particles.

Aaron: Thanks. I don't think it will do much, but I suppose I've got no other choice. Wait a minute. (7)

Marianne: True. I don't, but my daughter is crazy about her.

- (5) ㄱ. She stays in the basement most of the time
□. I never let the cat sleep inside the house
ㄷ. She mostly just rolls around on the floor
ㄹ. I generally let her out during the day anyway
- (6) ㄱ. Why don't you buy a mask?
□. Why don't you try this mask?
ㄷ. Drinking this should make you feel better.
ㄹ. This is perfect medicine for allergies.
- (7) ㄱ. Aren't you allergic to cats, too?
□. Didn't you used to have a dog?
ㄷ. I thought you didn't like cats.
ㄹ. You don't have to worry about mice.

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するせ。

Noise in cities is annoying. And it's also dangerous. The World Health Organization (WHO) has described noise pollution as an underestimated threat that can cause hearing loss, *cardiovascular problems, stress, and depression. Some experts go (1): they believe exposure to environmental noise could be slowly killing us. An expert says, "Noise pollution causes hypertension, diabetes, obesity, heart attacks, strokes, and even death." Noise pollution is often cited as (2) of the main factors in the reduced quality of life in large, 24-hour cities (3) New York. While the (4) of noise on mental health has not been studied extensively, research has shown that "strong noise annoyance is associated (5) a twofold higher **prevalence of depression and anxiety in the general population." A recent study by experts at the American College of Cardiology linked noise pollution to increased cardiovascular problems through the body's stress-mediated response, which in turn damages blood vessels. At a conference organized by the European Commission in April 2017, noise was regarded as "the silent killer," with potentially severe consequences for our (6) and mental health. And yet its impacts remain unreported and underestimated.

* cardiovascular : 心臓血管の

** prevalence : 罹患率

【以下余白】

