

O 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。

What defines who we are? Our habits? Our tastes? Our memories? If pressed, I would answer that if there is any part of me that sits at my core, that is an essential part of who I am, then surely it must be my moral center, my deep-seated sense of right and wrong. And yet, like many other people who speak more than one language, I often have the sense that I'm a slightly different person in each of my languages—more assertive in English, more relaxed in French, more sentimental in Czech. Is it possible that, along with these differences, my moral compass also points in somewhat different directions depending on the language I'm using at the time?

Psychologists who study moral judgments have become very interested in this question. Several recent studies have focused on how people think about ethics in a non-native language—as might take place, for example, among a group of delegates at the United Nations using a **lingua franca* to come up with a resolution. The findings suggest that when people are confronted with moral dilemmas, they do indeed respond differently when considering them in a foreign language than when using their native tongue.

In a 2014 paper led by Albert Costa, volunteers were presented with a moral dilemma known as the “train problem”—imagine that a runaway train is speeding toward a group of five people standing on the tracks, unable to move. You are next to a switch that can shift the train to a different set of tracks, thereby sparing the five people, but resulting in the death of one who is standing on the side tracks. Would you pull the switch?

Most people agree that they would. But what if the only way to stop the train is by pushing a large stranger off a footbridge into its path? People tend to be very reluctant to say they would do this, even though in both scenarios, one person is sacrificed to save five. But Costa and his colleagues found that posing the dilemma in a language that volunteers had learned as a foreign tongue dramatically increased their stated willingness to push the sacrificial person off the footbridge, from fewer than 20% of respondents working only in their native language to about 50% of those

using the foreign one.

Using a very different experimental setup, Janet Geipel and her colleagues also found that using a foreign language shifted their participants' moral judgements. In their study, volunteers read descriptions of acts that appeared to harm no one, but that many people find morally objectionable—for example, someone cooked and ate his dog after it had been killed by a car. Those who read the stories in a foreign language (either English or Italian) judged these actions to be less wrong than those who read them in their native tongue.

Why does it matter whether we judge morality in our native language or a foreign one? According to one explanation, such judgments involve two separate and competing modes of thinking—one of these, a quick, instinctive “feeling,” and the other, careful deliberation about the greatest good for the greatest number. When we use a foreign language, we unconsciously sink into the more deliberate mode simply because the effort of operating in our non-native language prepares our cognitive system for challenging activity. This may seem paradoxical, but is in line with findings that reading math problems in a hard-to-read font makes people *less* likely to make careless mistakes (although these results have proven difficult to confirm). An alternative explanation is that differences arise between native and foreign tongues because our childhood languages vibrate with greater emotional intensity than do those learned in more academic settings. As a result, moral judgments made in a foreign language are less loaded with the emotional reactions that surface when we use a language learned in childhood.

There's strong evidence that memory ties a language to the experiences and interactions through which that language was learned. For example, people who are bilingual are more likely to recall an experience if prompted in the language in which that event occurred. Our childhood languages, learned in the throes of passionate emotion (whose childhood, after all, is not filled with love, rage, wonder, and punishment?) become infused with deep feeling. By comparison, languages acquired late in life, especially if they are learned through restrained interactions in the classroom or delivered over computer screens and headphones, enter our minds bleached of the emotionality that is present for their native speakers.

Catherine Harris and her colleagues offer compelling evidence for the physical

responses that a native language can provoke. Using the skin's electrical ^{**}conductivity to measure emotional arousal (conductivity increases as adrenaline surges), they had native Turkish speakers who had learned English late in life listen to words and phrases in both languages. Some of these were neutral ("table") whereas others were taboo ("damn") or conveyed reprimands ("Shame on you!"). Their participants' skin responses revealed heightened arousal for taboo words compared to neutral ones, especially when these were spoken in their native Turkish. But the strongest difference between languages was evident with reprimands. The volunteers responded very mildly to the English phrases, but had powerful reactions to the Turkish ones, with some reporting that they "heard" these reprimands in the voices of close relatives. If language can serve as a container for potent memories of our earliest transgressions and punishments, then it is not surprising that such emotional associations might color moral judgments made in our native language.

The balance is tipped even further toward this explanation by a recent study published in the journal *Cognition*. This new research involved scenarios in which good intentions led to bad outcomes (someone gives a homeless person a new jacket, only to have the poor man beaten up by others who believe he has stolen it), or good outcomes occurred despite questionable motives (a couple adopts a disabled child to receive money from the state). Reading these in a foreign language rather than a native language led participants to place greater weight on outcomes and less weight on intentions in making moral judgments. These results clash with the notion that using a foreign language makes people think more deeply, because other research has shown that careful reflection makes people think *more* about the intentions that underlie people's actions rather than less.

But the results do fit with the idea that when using a foreign language, muted emotional responses—less sympathy for those with noble intentions, less outrage for those with evil motives—reduced the impact of intentions. This explanation is bolstered by findings that patients with brain damage to the ^{***}prefrontal cortex, an area that is involved in emotional responding, showed a similar pattern of responses, with outcomes privileged over intentions.

What then, is a multilingual person's "true" moral self? Is it my moral memories, the echoes of emotionally charged interactions that taught me what it

means to be “good”? Or is it the reasoning I’m able to apply when free of such unconscious restrictions? Or perhaps, this line of research simply illuminates what is true for all of us, regardless of how many languages we speak. For our moral compass is a combination of the earliest forces that have shaped us and the ways in which we escape them.

**lingua franca* : 国際共通語

***conductivity* : 電気を通じる性質

****prefrontal cortex* : 前頭葉

1. The main purpose of the first paragraph is to ask
 - イ. what is the basis of multilingual identity.
 - ロ. whether language influences morality.
 - ハ. where the sense of morality comes from.
 - ニ. how personality varies by culture.

2. The author refers to a group of delegates at the United Nations as an example of people who
 - イ. may be strongly influenced by logic while making moral judgments.
 - ロ. are able to make moral judgments while conversing in their native tongue.
 - ハ. tend to be strongly influenced by emotion while making moral judgments.
 - ニ. must make moral judgments while thinking in a foreign language.

3. In the 2014 study by Albert Costa, participants were
 - イ. presented with the “train problem” only in their native language.
 - ロ. asked to find their own solution to the “train problem.”
 - ハ. presented with the “train problem” in one of two languages.
 - ニ. asked to describe a moral dilemma related to the “train problem.”

4. One idea of paragraph 6 is that moral judgment may be influenced by using a foreign language because a foreign language makes us
- イ. think more carefully.
 - ロ. feel more tired.
 - ハ. think more quickly.
 - ニ. feel more emotional.
5. The underlined word “bleached” (paragraph 7) is closest in meaning to
- イ. critical.
 - ロ. emptied.
 - ハ. suggestive.
 - ニ. uncertain.
6. Research by Catherine Harris and her colleagues showed all of the following EXCEPT that
- イ. Turkish is a more emotional language than English.
 - ロ. words in our native tongue carry memories of childhood.
 - ハ. being scolded in childhood is associated with strong emotional memories.
 - ニ. languages learned as an adult cause less emotion than one’s native tongue.
7. The underlined word “transgressions” (paragraph 8) is closest in meaning to
- イ. challenges.
 - ロ. discoveries.
 - ハ. misbehaviors.
 - ニ. successes.
8. In the recent study published in the journal *Cognition*, participants’ judgments of moral scenarios were
- イ. influenced mainly by childhood memories related to the scenarios.
 - ロ. less concerned with intentions when reading in a foreign language.
 - ハ. not influenced by the language in which they read the scenarios.
 - ニ. more concerned with outcomes when reading in their native language.

9. The author would most likely agree that
- イ. people who speak only one language have a weak sense of morality.
 - ロ. multilingual people do not have a “true” moral self.
 - ハ. language has a big influence on one’s moral choices.
 - ニ. the best moral judgments are based on emotion.
10. The most appropriate title for this passage is
- イ. How Morality Changes in a Foreign Language.
 - ロ. Recent Research on Moral Judgment.
 - ハ. How Foreign Languages Influence Our Behavior.
 - ニ. The Sense of Self in Multilingual People.

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。

Your heart rate speeds up. Your breathing quickens. Your muscles tighten. Your stomach ties itself in knots. All of these changes are symptoms of the condition called stress. When animals, including humans, are under severe stress, their bodies respond with a powerful neurochemical chain reaction. Glucose, the fuel for our cells, is released into the blood from storage sites in our body, notably the liver. The elevated heart rate increases circulation of the energy-enriched blood to the muscles. Any long-term body processes not immediately necessary, such as digestion, growth, and reproduction, are slowed down. Immune defenses are strengthened, ready to respond to bodily injury, and our senses are sharpened. The major purpose of this response, says psychiatrist and stress researcher Kristen Aschbacher, is “to help redirect energy away from less critical functions in order to devote them to survival functions.” Stress gets you ready to react.

But a recent study published in the journal *Psychoneuroendocrinology* shows that the stress response is not just experienced by those directly in a crisis: It can be contagious. You can catch it from seeing other people under stress, even if you're watching a stranger on a video screen. This phenomenon is called “empathetic stress.”

The study looked at pairs of total strangers along with romantically involved couples that had been together for at least six months. One person from each pair was subjected to the Trier social stress test, where they were given a fictitious job interview, then asked challenging arithmetic questions in front of a panel of supposed “behavior analysts.” The other member of the couple simply observed the test, either via a one-way mirror or a video transmission.

The set-ups were designed to simulate real-life situations that might engender empathetic stress: observing a real person nearby, and virtually. “Given the omnipresence of television today and the fact that often stressful information is communicated via TV, we were specifically interested in whether a virtual confrontation with stress would be strong enough to cause a response,” says Veronika Engert, one of the study's five co-authors.

The researchers made sure the onlookers knew that they would not be subjected to the test themselves, so as to ensure that they spent their time observing and not worrying that they would suffer the same fate. To measure stress levels, the researchers measured the amount of the stress hormone *cortisol in the saliva of both the test-taker and observer at different points throughout the session.

All but 5 percent of the participants taking the stress-inducing test showed signs of stress, demonstrated by an increase in cortisol. Overall, 26 percent of all the observers also experienced “empathetic stress,” just from watching their test partner take the test. As you would probably expect, there was a big difference between the romantic couples and the paired strangers.

One in 10 of the observers felt empathetic stress from watching a stranger struggle, but if the observed person was a loved one, the percentage increased by four times. “The reason may be that we have a better understanding of the cues, both non-verbal and verbal, signaling stress from our loved ones,” explains scientist Tony Buchanan, who was not involved with this study but independently studies empathetic stress. “We are experts at detecting emotional states in those we live with, but it most likely takes time and experience to understand people we’ve just met.” The very fact that empathetic stress did show up at all between two strangers came as a surprise, according to the study’s co-author Franziska Plessow.

So why does stress reflect onto other people? Plessow says that they can only speculate. The researchers write that “being in tune with another individual may have an adaptive evolutionary purpose”—that is, a survival advantage—because it allows us to gain information about whatever is causing the suffering. “If one rat, monkey, or human is under stress, the others in the group may need to pay attention in order to understand why that individual is stressed and whether the threat to that individual poses a threat to other members of the group,” says Buchanan. Also, since the stress response prepares the body for fight or flight, perhaps the empathetic stress mobilizes the energy needed to come to the other person’s aid.

Of course, stress can have downsides. “The stress response is brilliant for getting you through a crisis, but things get stranger when we are stressed for purely psychological reasons,” says Robert Sapolsky, a neuroscientist at Stanford University. “If you are sitting there, pulsating with frustration in a traffic jam, your body is

doing the same thing as if you were running away from a lion. But in such cases, you don't need to." Humans, as well as some other primates, are unmatched in having the ability to generate psychosocial stress, he adds. The relative safety from life-threatening risks and the high amounts of leisure time that we now enjoy means that the biological stress-coping mechanisms that were once so vital can now cause more harm than good.

The presence of empathetic stress suggests that, through no fault of their own, other people's stress could exact a cost on your health. Since the power of empathetic stress is proportional to the emotional connection between two people, this phenomenon might put caregivers and families with continually stressed individuals at higher risk.

In addition, given that even people watching strangers on TV experienced empathetic stress, the negative effects could be more widespread. "The constant stream of disturbing news which we are confronted with in the daily media has the potential to compromise a significant range of people," the authors write. They call for further research to try to circumvent the possible negative effects.

"The work by Engert and her colleagues suggests that we need to look beyond the individual and try to understand how stress can spread to children, spouses and others," says Buchanan. "People may think they can hide their stress from loved ones or co-workers, but in many cases, they do not, and so others around them may be affected without knowing." Some of society's most giving members may need help themselves in coping with the load they take on.

* cortisol : コルチゾールというホルモンの一種

1. One idea of the first paragraph is that stress is
 - イ. not really necessary for everyday life.
 - ロ. worse for humans than for other animals.
 - ハ. not well understood by science.
 - ニ. useful for survival.

2. The study published in *Psychoneuroendocrinology* was concerned mainly with
- イ. a psychological cause of stress.
 - ロ. the influence of stress on normal activities.
 - ハ. a physical symptom of stress.
 - ニ. the accurate measurement of stress.
3. In the study,
- イ. one person in each pair had their stress levels measured.
 - ロ. both persons in each pair watched stressful information on TV.
 - ハ. one person in each pair did the Trier social stress test.
 - ニ. both persons in each pair watched a video transmission of their partner.
4. The underlined word “engender” (paragraph 4) is closest in meaning to
- イ. prevent.
 - ロ. produce.
 - ハ. reduce.
 - ニ. require.
5. All of the following results were obtained in the study EXCEPT that
- イ. 95% of participants subjected to the Trier test felt empathetic stress.
 - ロ. 5% of the participants did not demonstrate a stress reaction.
 - ハ. 90% of all onlookers who watched a stranger felt no empathetic stress.
 - ニ. 40% of the onlookers felt empathetic stress while watching their loved ones.
6. The authors of the study suggest that empathetic stress
- イ. does not seem to have a clear function.
 - ロ. is difficult to study scientifically.
 - ハ. may serve to alert people to potential threats.
 - ニ. is a response only human beings are capable of.

7. In the underlined phrase, "But in such cases, you don't need to" (paragraph 9), "such cases" refers to
- イ. feeling stress unnecessarily.
 - ロ. running away from a lion.
 - ハ. hoping to avoid a traffic jam.
 - ニ. giving up the ability to feel stress.
8. The underlined word "circumvent" (paragraph 11) is closest in meaning to
- イ. adjust.
 - ロ. avoid.
 - ハ. encourage.
 - ニ. surround.
9. One idea of the last paragraph is that people who experience empathetic stress
- イ. should try to hide their stress from others.
 - ロ. are difficult to identify and care for.
 - ハ. should focus more on living their own lives.
 - ニ. may need support in coping with their stress.
10. The most appropriate title for this passage is
- イ. Does Stress Influence Empathy?
 - ロ. The Physical Signs of Stress.
 - ハ. Can We "Catch" Stress?
 - ニ. The Psychological Effects of Empathy.

Ⅲ. 次の1～10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 didn't trust the assistant's plans for developing the new product, nor ().
イ. did my colleagues ロ. have my colleagues
ハ. my colleagues had ニ. my colleagues have
2. According to my father, time before an exam () sleeping than studying.
イ. had better spend ロ. is better spent
ハ. would better spent ニ. would rather spend
3. This assignment does not seem to () the topics we have been covering in class.
イ. do anything to have ロ. do something about any
ハ. have anything to do with ニ. have to do anything to
4. As more students joined the class, a bigger room ().
イ. had needs ロ. has need
ハ. was needed ニ. were needed
5. The writer had difficulty deciding how best to () the main character in her novel.
イ. depict ロ. exhibit ハ. say ニ. tell
6. In some companies, working a certain number of years entitles employees to an automatic salary ().
イ. choice ロ. improve ハ. increase ニ. promotion
7. Since James is well organized, () of his belongings ever gets lost.
イ. no ロ. none ハ. not ニ. nothing

8. At the end of a long day, I enjoy the () of my favorite chair.

- イ. advantage ロ. aid ハ. break ニ. comfort

9. Why did she keep asking questions () which nobody could possibly reply?

- イ. in ロ. on ハ. to ニ. with

10. Preliminary investigations indicate that some of the clients' money, believed to total £6 million, () found its way into other companies and property purchases.

- イ. are ロ. has ハ. have ニ. is

IV. 次の空所(1)～(10)を補うの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.

Antwan: Man, this train map is impossible to figure out. How many train lines does this city have?

Booker: Good question. It just looks like a giant plate of rainbow-colored spaghetti to me.

Antwan: (1)

Booker: No, don't worry. (2) What station are we looking for?

Antwan: Well, our hotel is in Yokohama. But, with all of these lines going everywhere, I can't even find where we are now!

Booker: If we don't get moving soon, we'll miss our dinner appointment.
(3)

Antwan: Hang on. I got this... Excuse me, sir. We're trying to get to Yokohama.

Stationmaster: OK. You should take the Tokyu-Toyoko Line. (4)

Antwan: That soon? Thank you.

Booker: Hmm... (5)

Antwan: I told you so!

- (1) イ. Or, we could just wait until the next train arrives?
ロ. Maybe we should ask for directions?
ハ. After the food on the plane, I don't have much of an appetite.
ニ. Once we get there, we'll be fine.

- (2) イ. We're really running behind.
ロ. Where's your originality?
ハ. We can figure this out.
ニ. Why did that happen?

- (3) イ. What do you suggest?
ロ. But do you want to stay here?
ハ. And I'm not hungry anyway.
ニ. And your plan won't work.
- (4) イ. The train runs from the north to the south.
ロ. It's going to be delayed, I'm afraid.
ハ. The next train is leaving in ten minutes.
ニ. It's only a three-minute walk from here.
- (5) イ. Now we can forget about our plans altogether, right?
ロ. That's what I thought. Now what are we going to do?
ハ. You ask the wrong person, you get the wrong answer.
ニ. Maybe asking for directions wasn't such a bad idea after all.

B.

Axel: What's wrong, Cletus? You look like you've just seen a ghost.

Cletus: I can't find my textbook for my economics class, and we have a quiz tomorrow. (6).

Axel: You can borrow mine, if you'd like. (7)

Cletus: Well, to be honest... the real problem is that I've already lost two books. I lost my own book two weeks ago. So, I borrowed Jeb's book. Now that one's gone, too!

Axel: Maybe I should reconsider my offer. (8). With the final test coming up soon, the last thing I need is for you to mess things up for me.

Cletus: I totally understand your concerns, but... what should I do?

Axel: Have you checked the lost-and-found box in the school office?

Cletus: Yes, I have. (9).

Axel: OK, in that case, I suppose I could make some copies for you. How many pages do you need to prepare for the quiz?

Cletus: Umm... all the pages. Fact is, I haven't even opened the book!

Axel: Oh, man. (10)?

Cletus: Sorry!

- (6) ㄱ. It's a perfect opportunity
 □. I can't see what the problem is
 ㄷ. I'm in serious trouble
 ㄴ. A little bit more should do it
- (7) ㄱ. I don't need it until tomorrow.
 □. Why don't you just forget all about it?
 ㄷ. There's no need to delay.
 ㄴ. How about lending me yours?
- (8) ㄱ. There's a good chance that you'll get it
 □. Loaning a book to you sounds risky
 ㄷ. My book is not worth all that much
 ㄴ. You can always count on a friend
- (9) ㄱ. Almost
 □. Whenever
 ㄷ. Nobody
 ㄴ. Nothing
- (10) ㄱ. When are you going to find out
 □. What have I gotten myself into
 ㄷ. How could anything be so obvious
 ㄴ. Who needs the book anyway

V. 次の空所(1)～(5)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。

The clue to the mystery of how the *gecko, a type of lizard, sticks to surfaces lies in the design of its feet. Millions of microscopic hairs, called setae, grow on the bottoms of gecko feet. Each hair splits into 1,000 strings tipped with pads that are tiny enough to (1) advantage of weak electrodynamic attractions between individual molecules that operate over small distances. The sticking force is (2) great that an individual seta could lift an ant, and the combined power of all the setae could lift an adult weighing more than 200 pounds. The angle that the hair shaft makes with the surface is critical to its ability to stick. If the angle reaches 30 (3), the hair pops off the surface, allowing the gecko to move quickly across walls and ceilings.

Earlier studies of geckos explained their sticking power as the (4) of the **secretion of a gluelike substance from their feet. Scientists discovered, however, that because geckos leave no footprints, secretion does not explain their sticking ability. Friction, another possible theory, does not explain (5) geckos can stick to ceilings. In the future, gecko research could lead to the development of synthetic adhesives that can be used underwater or in space.

* gecko : ヤモリ

** secretion : 分泌

【以下余白】

