

1

次の英文を読み、日本語で問題に答えなさい。

Ask a group of people to describe the color of a sheet of paper, a cloud, or a glass of milk, and chances are they'll all say "white." But ask the same group to describe the smell of cinnamon*, and you'll likely get a variety of answers, ranging from "spicy" to "smoky" to "sweet," and sometimes all three. When it comes to naming smells, humans struggle to find concise and common terms. That's because smells (which contribute heavily to what we commonly call taste) are notoriously hard to put into words. Indeed, scientists have long thought 1) this ability was out of our reach. But a new study by a research team of Radboud University in the Netherlands indicates that the inhabitants of a remote peninsula in Southeast Asia can depict smells as easily as the rest of us pick colors.

The study concerns the Jahai, nomadic hunter-gatherers** who live in the mountain rainforests along the border between Malaysia and Thailand. Since smell is very important to this society, 2) the Jahai have particular words for smell types. These are not based on an odor's source, such as "resembling a lemon" ("lemony"), or on some evaluation of its specific characteristic, like "smelly," but come from the sensory experience itself. According to the researchers, for example, the term "pʔus" describes the smell of small, old houses or cabbage, and "cɲəs" describes the smell of cinnamon as well as garlic, onions, coffee, chocolate, and coconuts. This suggests that the Jahai can identify basic qualities of smell, much like many people can identify the color white from milk.

3) To find out if the Jahai are better at naming smells, the research team asked native Jahai speakers and native English speakers to describe 12 different odors and colors. Each participant was simply asked, "What odor is this?" and "What color is this?" Responses were then compared on a number of measures, including length of response, type of response, and speaker agreement in names. The researchers found that Jahai speakers were equally likely to use the same words as other Jahai speakers to describe both colors and odors. Moreover, they overwhelmingly used abstract Jahai smell words to describe odor. On the other hand, English speakers usually used the same words for colors, but used enormously different words from each other for smells. They used mostly source-based descriptions ("lemony") or evaluative descriptions ("that's smelly").

The results show that Jahai are able to identify common odor characteristics, suggesting that they have a special perception ability compared with other cultures. The Jahai need this perception ability because 4) their sense of smell is crucial to their way of life. For example,



living in the rainforest, it's important to know the difference between rainforest plants—which ones are edible, and which ones are not. If it's impossible to tell the difference with the eyes, the nose will be helpful. In a similar way, having agreement on how to describe a smell that could attract a predator, like a tiger, might save their lives. It's also possible that the Jahai are built differently. The genes that code for the olfactory receptors*** in human noses exhibit a great deal of variation not only between different human populations but also between people. So it may be that A.

“We won't be able to answer these questions until comparable studies are carried out on lots of other human cultures,” says one biologist in Australia. “But this study has broken open the seal on the perfume bottle.”

* cinnamon シナモン

** nomadic hunter-gatherers 遊牧の狩猟民族

*** the olfactory receptors 嗅覚受容体

[1] 下線部 1)とはどのようなものか、説明をください。

[2] 下線部 2)は、どのような特徴を持つものか、説明をください。

[3] 下線部 3)の研究において、ジャハイ語話者の結果を2つ挙げなさい。

[4] 下線部 4)について、どのような具体例が示されているか、120字以内で説明しなさい。

[5] 空欄 Aに入る最も適切なものを、選択肢から選び、記号で答えなさい。

- a. the Jahai community has provided its people with an enormous amount of help for their advanced ability of the olfactory receptors
- b. the Jahai speakers would not have any biological limitation on their olfactory receptors in order to name smells
- c. the Jahai people's olfactory receptors and their sense of smell are more advanced than their sense of colors
- d. the Jahai have evolved more of the olfactory receptors or a greater diversity of them than everyone else
- e. the Jahai tribe prefers living in a smell-rich environment and has scent-centric cultural practices for their olfactory receptors



2

次の英文を読み、問題に答えなさい。

Yogurt is one of the oldest produced foods in human history. [A], but most historians place its discovery somewhere between 9000 and 6000 B.C. Evidence suggests that by 9000 B.C. Neolithic man in Central Asia had domesticated horses, cattle, and camels, and were known to drink their milk. The discovery of yogurt is supposed to have been accidental, a happy mistake made by early man attempting to store milk in a warm climate. The fermentation process was discovered and yogurt has not only survived into modern times, but has spread throughout the world.

One theory of the discovery of yogurt is that early man stored the milk in the intestines of animals. The enzymes that were present in the intestines may have started the initial fermentation process. Early man enjoyed it and continued making it. Another thought is that early man noticed that the milk they consumed changed its form once ingested and set out to create the fermented milk intentionally. Whatever the true story behind its discovery, yogurt spread from Central Asia to the Middle East and Europe and throughout the world.

Yogurt appears in many ancient texts including ancient scripts, the Bible and historic texts. The great Mongol warrior Genghis Khan is said to have encouraged the drinking of a fermented horse milk yogurt called “kumis.” Mongols of all levels of society consumed the beverage, but it was of particular importance to the warriors. The warriors would take their horses with them as they traveled the plains and always have a supply of “kumis.” Genghis Khan reputedly believed that not only did the “kumis” keep his warriors healthy, but actually made them braver when facing their enemies.

Historical records show that in the 16th century a Turkish doctor saved the life of King Francis I by treating him with yogurt made from goat’s milk. The king had been suffering from some type of intestinal illness that no other medicine seemed to help, but was apparently cured by yogurt. This wondrous cure brought an increased popularity of yogurt as a health food, though no one quite knew how the yogurt worked.

While yogurt continued in its popularity, both for its unique taste and claimed health benefits, it was not until the early 20th century that those health benefits were studied. A Nobel Prize-winning Russian scientist named Elie Metchnikoff studied the health benefits of fermented milk on the people of Bulgaria. He determined that the bacteria in fermented milk products like yogurt helped to reduce the amount of bad bacteria in the intestines. Although yogurt was sold as a medicine through pharmacies in Western Europe first, his research



influenced many people, and thus actively popularized yogurt in those countries.

The variety of flavors and packaging were introduced throughout the 20th century, and yogurt has become a main food, reliable and well-known. Today, there are innovations that are less “spectacular” but absolutely key to one of yogurt’s “missions”: providing better health. In emerging markets, customizing the products to the tastes and needs of consumers will keep helping these people get the proteins and vitamins they need, [B]. And finally, in the field of medical nutrition, research and development still has a lot to bring to the fight against modern diseases, and particularly age-related ones. The story of yogurt is not quite over yet.

〔1〕空欄〔A〕及び〔B〕に入れるべき英文を以下の語を並び替え、完成させなさい。

尚、下線の語はすでに与えられている。語はすべて小文字で表記してある。

それぞれ、(4)及び(8)に入る語を答えなさい。

A: [yogurt / one / been / knows / has / long / around / no / how / for sure]

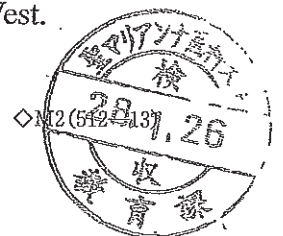
(1) (2) (3) for sure (4) (5) (6) (7) (8) (9)

B: [is / enjoy / allowing / good / actually / what / while / for / to / them / them]

(1) (2) them (3) actually (4) (5) (6) (7) (8) (9)

〔2〕以下の英文について、本文の内容に合っているものを3つ選び、番号で答えなさい。

1. Man has been consuming yogurt in some form for at least 9000 years.
2. Theories on how yogurt was discovered begin with early humans recognizing that milk changed its form under certain conditions.
3. Because “kumis” is made of camel milk, Mongol warriors could drink it even when they were traveling.
4. From the 1500s onwards, people began to note that yogurt was beneficial to health.
5. Elie Metchnikoff actively studied yogurt in order to popularize it in Western Europe.
6. The variety of flavored yogurts we enjoy today is a relatively recent innovation.
7. Now that yogurt is known and enjoyed world-wide, there are fewer possibilities for innovation.
8. According to the reading, over time yogurt spread from the East to the West.



3

次の会話 Situation I、Situation II を読み、問題に答えなさい。

Situation I

A: How are you feeling? Any better now?

B: Perhaps, a little bit. It's great to see you, [A].

A: Here, I've brought you some comic books.

B: Oh, thanks.

A: Well, what's it like here? (1)

B: I've been stuck with lots of needles and given different sorts of pills. Also, I had a chest X-ray just after coming in. But I don't think it's so bad.

A: I see. You seem to be receiving good care. (2)

B: I did ask, but they said it was too early to say.

A: Well, I hope they won't keep you in for very long. (3)

B: Watching TV, and nothing particular.

A: So then, shall I bring you a couple of your textbooks so that you can get caught up with your work? (4) We were given a lot of homework today.

B: What? I can't have missed all that much. I've been here only seven hours.

Honestly, I don't feel like studying right now. (5)

A: O.K. (6) Is there anything else that you especially want?

B: No, thanks. I have all I need.

A: I see. I hope you'll get well soon.

B: Thanks for dropping in. Goodbye.

Situation II

C: Good morning. Did you sleep well in your own bed? Are you feeling better now?

D: Yes, but I still feel sluggish. Thank you, anyway.

C: Well, your temperature's down to normal. Could I see your throat? Open your mouth, please. Hmm, all right, thank you.

D: (7)

C: Well, not too bad. Does it feel sore?

D: Yes, a little bit. How long do you think it'll be before I can go to school?

C: (8) Could you take your pajama jacket off?

D: Does it sound any better?



C: Yes, but it's still noisy. You'd better stay in bed for a little while longer.

D: But I don't feel too bad. (9) I want to use my smartphone.

C: Well, only if you just sit up in bed, you can use your smartphone for a short time.

D: Thank you, I promise, just for a short time.

C: (10)

D: Ah, yes, I'm not permitted to go to school even if the fever is gone.

C: That's not enough. (11)

D: So, I should stay in bed only today, shouldn't I?

C: I am the one who can say that you are fine. Understand? I'll see you tomorrow or the next day. Goodbye, then. You don't have to call your mother. (12)

D: I see. Thank you, and goodbye, [B].

[1] Situation I, Situation II は異なる場所での会話である。それぞれどのような場所か、選択肢から選び、番号で答えなさい。

- | | | |
|-----------------------|----------------------|------------------------|
| 1. an emergency room | 2. an operatory room | 3. an examination room |
| 4. one's room at home | 5. a nurse's office | 6. a hospital room |

[2] 空欄 [A], [B] に入る最も適切なものを、選択肢から選び、番号で答えなさい。

- | | | |
|--------------------|------------|----------------------------|
| 1. Mary (a friend) | 2. Mother | 3. Mr. Thomas (a nurse) |
| 4. Doctor | 5. Officer | 6. Ms. Roberts (a teacher) |

[3] 空欄 (1) - (12) に入る最も適切なものを、選択肢から選び、記号で答えなさい。

- ア. Can I at least sit up?
- イ. I'll try not to forget to bring them next time.
- ウ. I can find my way out.
- エ. I told you where to go.
- オ. I might feel a bit more like it tomorrow.
- カ. Did you ask them how long you would be here?
- キ. Do you remember we have health regulations for infections like influenza?
- ク. How is it?
- ケ. How long have you spent in bed?
- コ. Before that, I would like to examine your chest.
- サ. Two days must pass after the temperature has gone down.
- シ. What else have you been doing?
- ス. What has been done to you?
- セ. What is it?
- ソ. You must be missing quite a lot by being here.



4

次の空欄に入る最も適切なものを、選択肢から選び、記号で答えなさい。

1. We arrived at the station early () we could get unreserved seats.
a. resulting b. since c. so that d. with which e. when
2. Can you () me tonight to make an appointment with my doctor?
a. recall b. recollect c. remember d. remind e. repeat
3. Flight JA104 leaves from Narita, () flight JA204 leaves from Haneda.
a. as well as b. in addition c. in spite d. nevertheless e. whereas
4. Always take a basic medicine kit on vacation () you become sick.
a. when b. in case c. if d. if only e. even if
5. The best part () to another actress, Rose felt unwilling to continue in the show.
a. having been given b. gave c. was giving d. was given e. giving
6. "The video projector doesn't seem to be working." "Try () the yellow button."
a. being pressed b. pressed c. press d. to press e. pressing
7. I know she told me her name, but I can't think () it now.
a. of b. in c. for d. by e. at

