令和５年度　個別学力試験問題

外　国　語　(英　語)

(120分)

●総　合　選　抜

文系Ⅰ，理系Ⅰ，理系Ⅱ，理系Ⅲ

●学類・専門学群選抜

人文・文化学群　(人文学類，比較文化学類)
社会・国際学群　(社会学類，国際総合学類)
人　間　学　群　(教育学類，心理学類，障害科学類)
生命環境学群　(生物学類，生物資源学類，地球学類)
理　工　学　群　(数学類，物理学類，化学類，応用理工学類，工学システム学類，社会工学類)
情　報　学　群　(情報科学類，情報メディア創成学類)
医　　学　群　(医学類，看護学類，医療科学類)

注　　意

1. 問題冊子は１ページから12ページまでである。
2. 解答は解答用紙の定められた欄に記入すること。

I　次の英文を読んで，下の問いに答えなさい。
（星印(*)のついた語には本文の後に注があります。）

Hear the word "circle," and you'll probably think of something round. Hear "razor," and you'll think of something sharp. But what about a seemingly nonsense word such as "bouba" or "kiki"?

In a famous linguistics* study, researchers showed these words make English speakers think of blobby and sharp shapes, respectively. Now, the most extensive study of this finding yet — testing 917 speakers of 25 languages that use 10 different writing systems — has found that 72% of participants across languages associate the word "bouba" with a blobby shape and "kiki" with a sharp one.

(1) Such "cross-sensory" links — here, between speech and vision — show people can use nonsense words and other vocal noises to evoke* concepts without using actual language. That could help explain how language evolved in the first place, says Aleksandra Ćwiek, a linguistics doctoral researcher at the Leibniz-Centre General Linguistics who led the new study.

"It's exciting to see more work on this phenomenon with a greater diversity of languages," says Lauren Gawne, a linguist at La Trobe University who was not involved with the study. Testing speakers from different writing systems is especially useful, she says, because it helps figure out exactly what underlies the finding.

Past research has（　ア　）to the spikiness of the letter K, and roundness of the letter B, as the primary reason for the effect of "kiki" and "bouba" on English speakers. But other work has found that children who haven't yet（　イ　）to read also make the association, as do Himba people in Namibia, who have（　ウ　）contact with Westerners and don't use（　エ　）language.

To understand how much of a role writing plays in the finding, Ćwiek and her colleagues wanted to test speakers from a much wider sample of

languages — and, crucially, different writing systems. She and her colleagues were already running a large international experiment across multiple countries, and they realized they could easily add on the bouba-kiki test (2) at the end of the task. They included speakers of languages from around the world — from Albanian to isiZulu in South Africa — and writing systems as different as Thai, Georgian, and Korean. The researchers recorded Ćwiek saying the two words aloud, and asked participants to choose whether a pointy, starlike shape or a blobby, cloudlike shape best matched each recording.

The volunteers overwhelmingly matched "bouba" with the round shape and "kiki" with the spiky one, the authors report today in the *Philosophical Transactions of the Royal Society B.* The finding suggests people make a genuine link between the sounds and the shape. It also adds to a growing pile of evidence (3) that challenges an old linguistic dogma: the belief that the sounds that make up a word have no relationship to its meaning.

But there were important differences across languages. Whereas 75% of speakers whose languages use the Roman alphabet — including English and other European languages — made the link, only 63% of speakers of other languages such as Georgian and Japanese did. And three languages — Romanian, Turkish, and Mandarin Chinese — didn't show the effect at all. (4)

There are good reasons why the finding might look different across languages, says Suzy Styles, a linguist at Nanyang Technological University. Different languages have their own rules for what sounds and syllables* can fit together; in English, for example, you can't start a word with the sound "ng," although this is perfectly fine in isiZulu. When the test words in an experiment don't match these rules, speakers don't have strong cross-sensory associations, Styles says: "An English speaker finds it hard to decide whether 'srpski' is spiky or round, because it doesn't sound 'wordy' in our language." (5)

It could also be that the made-up words have real meanings in certain languages, Ćwiek says. *Buba* is a Romanian word used for a small child's

wound — like "ouchy" — which could feel more like a "spiky" association for Romanian speakers, she says. And *cici*, pronounced "gee-gee," means "cute" in Turkish. That could give "kiki" associations with round-headed, chubby babies, Ćwiek adds.

Some evolutionary linguists have suggested language may have started not with speech, but with gesture, because it's so much easier to illustrate an idea with hands — like miming the shape of a tree, Ćwiek says. But that explanation just raises a new question: Why did speech emerge at all? The growing evidence that vocal noises can also evoke ideas like shape or size helps close that gap, she says, hinting that both gesture and speech "have played a significant role at the very core of language."

The study is robust*, and its control of writing systems is "useful and important," says Mark Dingemanse, a linguist at Radboud University. But linguists also need to better understand how cross-sensory associations like these play a role in real-world languages, he says: "For that, we need to move beyond bouba and kiki."

出典：Cathleen O'Grady (2021, November 14) "Nonsense Words Make People Around the World Think of the Same Shapes," https://www.science.org/content/article/nonsense-words-make-people-around-world-think-same-shapes より抜粋，一部改変

(注) linguistics 言語学
evoke ～を喚起する
syllable 音節
robust しっかりした，手堅い

(注意) 解答する際，句読点は1マスに1つ，英数文字は(大文字小文字ともに)1マスに2文字記入すること。

1. 下線部(1)は何と何のつながりを意味するか，以下の語群から2つ選び，記号で答えなさい。(順不同)

語群

(A) sight (B) smell (C) sound

(D) taste (E) touch

2. 空欄(ア)～(エ)を埋めるのに最も適した語を以下の語群から選び，記号で答えなさい。ただし，不要な語がひとつある。

語群

(A) hinted (B) learned (C) limited

(D) pointed (E) written

3. 下線部(2)の the bouba-kiki test の具体的な内容について，本文に即して50字以内の日本語で説明しなさい。

4. 下線部(3)の evidence とはどういうものか，本文の内容に即して30字以内の日本語で説明しなさい。

5. 下線部(4)について，ルーマニア語で bouba-kiki 効果が出なかったのはなぜだと考えられているか，その理由を，具体例を挙げて70字以内の日本語で説明しなさい。

6. 下線部(5)について，筆者がこのように考えるのはなぜか，"wordy" の意味するところが明らかになるように本文の内容に即して40字以内の日本語で説明しなさい。

7. 下線部(6)の close that gap が具体的に何を表すかの言い換えとして，最も適したものを以下から選び，記号で答えなさい。

(A) answer the question of how language survived

(B) discover the origin of gesture

(C) explain why speech emerged

(D) raise a new question

Ⅱ　次の子守唄についての英文を読んで，下の問いに答えなさい。
（星印（＊）のついた語には本文の後に注があります。）

There is a growing body of research about how lullabies help soothe both caregiver and child. Laura Cirelli, professor of developmental psychology at the University of Toronto, studies the science of maternal song. She found that when mothers sang lullabies, stress levels dropped not just for the baby but for mothers as well. In her most recent work, she found that familiar songs soothed babies the most — more than speaking or hearing unfamiliar songs.

A new mother herself, Cirelli sees singing lullabies as a "multimodal experience"(1) shared by mother and child. "It's not just about the baby hearing music," she says. "It's about being held by the mom, having her face very close, and feeling her warm, gentle rocking."

From culture to culture, lullabies "tend to have collections of features that make them soothing or calming," says Samuel Mehr, director of Harvard University's Music Lab, which studies how music works and why it exists. The lab's project(2), the Natural History of Song, found that people can hear universal traits in music — even when they are listening to songs from other cultures. The project asked 29,000 participants to listen to 118 songs and identify whether it was a healing song, a dance song, a love song, or a lullaby. "Statistically, people are most consistent in identifying lullabies," he says.

In a separate study, Mehr's lab found that （　ア　） when infants were listening to lullabies that were not sung by their own caregiver, or were not from their own culture, they were （　イ　） soothed. "There seems to be some kind of parenting-music connection that is not only universal around the world but also old, sort of ancient. This is something that we've been doing for a really long time."

Lullabies reflect the present, but they are often （　①　） in the past. In Mongolia the *buuvei* lullaby has been sung by nomads* for generations. Its

refrain, "buuvei," (②) "don't fear." "Love is the most important thing — passed on like a heritage," Bayartai Genden, a Mongolian traditional singer and dancer, and grandmother of 13, tells us as she describes "the magic of (③) love to your child through melodies." With more than half of Mongolia's children living in Ulaanbaatar, where pneumonia* is the second (④) cause of death of children under age five, UNICEF declared that the city's air pollution has become a child health crisis.

"I use these words to protect my children. They help my children heal," Oyunchimeg Buyankhuu says of the lullabies she sang when her two daughters were often sickened by the pollution. Her family moved out of the city so her children could breathe fresher air. Oyunchimeg sings the traditional *buuvei* lullaby, but between refrains she whispers healing words, reshaping a long-established song for today.(3)

As the COVID-19 pandemic began altering life worldwide, physical distancing drastically changed the way we connect. Elizabeth Streeter, a nurse in Massachusetts, works on the COVID-19 floor of her hospital. As the pandemic escalated, she made the difficult decision to isolate herself from her four boys in early April, to avoid exposing them to the virus. She stayed in a camper outside of her parents' home for a month while her husband stayed home to care for their children. During the evenings, Elizabeth connected with her family over the phone. She would sing her three-year-old son's favorite lullaby while fighting through tears, unclear about when she might get to hold him again.

"To separate such a sacred bond between mother and child, there are no words," she says in a journal post on Facebook. For Elizabeth, making her children safe meant being physically present. But to serve her community during the pandemic, that has shifted.(4) These days, living away from her children has become her way of keeping them safe. "It looks entirely different than what I always thought protection looked like."

Allison Conlon, a nurse from Bridgewater, Massachusetts, who works in a

hospital's intensive care unit, also separated from her family. At night she called Lucas, two, to read to him and sing "The Wheels on the Bus" and "Itsy-Bitsy Spider" before he went to bed. On Sundays she visited her family's home but did not enter, instead reading stories to him through a glass storm door*. (ウ), Allison gave her son a high five and a kiss. "My son was so resilient* and adapted to the change very well, and for that I am super thankful," she says.

To sing a lullaby to someone is to make a connection. The songs connect caregiver to child, but perhaps less noticeably, they also tell stories that connect us to our past, and to each other. Bayartai Genden describes the lullaby as "an exchange of two souls." Lullabies are part of the fabric from which caregivers create safe spaces that are necessary for dreams to unfold. These songs remind us that we are not (エ), and in the dark of night, they seem to hold a promise that on the other side waits the light of morning.

出典：Hannah Reyes Morales (2020, December) "Songs to Soothe," *National Geographic* より抜粋，一部改変

(注) nomads 遊牧民
pneumonia 肺炎
storm door 防風用補助ドア
resilient 立ち直りが早い

(注意) 解答する際，句読点は1マスに1つ，英数文字は(大文字小文字ともに)1マスに2文字記入すること。

1. 下線部(1)について，子守唄がどのような意味で multimodal な経験になると述べられているのか，本文に即して50字以内の日本語で答えなさい。

2. 下線部(2)の the lab's project によって子守唄について明らかになったことを30字以内の日本語で答えなさい。

3. 空欄(ア)と(イ)に入る単語の組み合わせとして，文脈上最も適切なものを次の中から選び，記号で答えなさい。

(A) (ア) especially (イ) already

(B) (ア) especially (イ) never

(C) (ア) even (イ) less

(D) (ア) even (イ) still

4. 本文の空欄(①)～(④)に入る単語を下の語群から選び，適切な形に変えて答えなさい。1つの単語は1回のみ使用すること。

語群： give lead mean root

5. 下線部(3)について，reshaping が意味するところを 40 字以内の日本語で説明しなさい。

6. 下線部(4)の that has shifted とはどのようなことを意味しているのか，that の 内容を明らかにしながら 60 字以内の日本語で説明しなさい。

7. 空欄(ウ)に入る語句として，文脈上最も適切なものを次の中から選び，記号で答えなさい。

(A) Breaking through the door

(B) By his bedside

(C) From her side of the glass

(D) On the same side of the storm door

8. 空欄(エ)に入る語として，文脈上最も適切なものを次の中から選び，記号で答えなさい。

(A) aged

(B) alike

(C) alone

(D) awake

Ⅲ　次の[A]，[B]に答えなさい。

[A]　次の英文の文脈に適合するように，(1)から(3)の(　　)内の語または句を並べ替えるとき，それぞれ3番目と5番目にくるものを選び，記号で答えなさい。

Researchers in Japan have created a new technology that uses food waste in a surprising way. The operation can turn food waste into a strong but bendable material like cement. It is four times stronger than regular concrete, and is sustainable. And, you can eat it, the researchers found.

Food waste is a big problem in Japan and the world. In 2019, Japan produced 5.7 million tons of food waste. The government is working on reducing this to 2.7 million by 2030. The food waste that would typically end up in landfills, rotting, and releasing methane gas, can now be used to make the concrete. Moreover, the new material, if not needed, (1)(① the ground ② buried ③ be ④ without ⑤ can ⑥ in) affecting the environment.

The team has used different types of food waste to make the cement, including tea leaves, orange peels, coffee grounds, and leftover lunch materials. Since the cement can be eaten, the researchers have changed the flavors with different spices and enjoyed the different colors, smell, and even the taste of the cement. They said that in order to eat it (2)(① needs ② a person ③ break ④ apart ⑤ to ⑥ it) and boil it.

The researchers are working with other companies to use the material to make products for the home. The process of creating the cement could be used to make temporary housing (3)(① a disaster ② eaten ③ if ④ be ⑤ that ⑥ can) happens. For example, if food cannot be delivered to evacuees, they could eat temporary beds made out of food cement.

出典：“Japan's New Edible Cement,” *VOA Learning English*, June 4, 2022 より抜粋，一部改変(https://learningenglish.voanews.com/a/japan-s-new-edible-cement/6600962.html)

(1) 3番目＿＿＿　5番目＿＿＿

(2) 3番目＿＿＿　5番目＿＿＿

(3) 3番目＿＿＿　5番目＿＿＿

[B] 次の英文を読んで，下の問いに 80 語程度の英語で答えなさい。ただし，句読点は語数に含めません。

In a 2008 article for *The Atlantic*, Nicholas Carr asked, "Is Google Making Us Stupid?" Carr argued that the internet as a whole, not just Google, has been weakening his capacity for concentration and reflection. He was concerned that the internet was "reprogramming us." However, Carr also noted that we should "be skeptical of his skepticism," because maybe he is just worrying too much. He explained, "Just as there's a tendency to glorify technological progress, there's a counter-tendency to expect the worst of every new tool or machine." Carr raised a continuing debate on and off the internet about how the medium is changing the ways we think, how we interact with text and each other, and the very fabric of society as a whole.

出典："Is the Internet Making Us Stupid?," *ProCon/Encyclopaedia Britannica*, April 5, 2022 より抜粋，一部改変(https://www.procon.org/headlines/is-the-internet-making-us-stupid-top-3-pros-and-cons/)

Question:

How is the internet influencing your life? Following the discussion above, write your opinion from your own experience.