

英 語

- 1 (A) 次の英文の要旨を、100～120字の日本語にまとめよ。句読点も字数に含める。

The notion of “imagined family” helps us to understand how group feelings can be extended beyond real family. Because humans evolved in small groups whose members were closely related, evolution favored a psychology designed to help out members of our close families. However, as human societies developed, cooperation between different groups became more important. By extending the language and sentiments of family to non-family, humans were able to create “imagined families” — political and social communities able to undertake large-scale projects such as trade, self-government, and defense.

By itself, though, this concept still can't explain why we consider all members of such a community to be equal. Imagined family differs from real family not only by the lack of genetic ties, but also by the lack of distinction between near and distant relatives. In general, all members of a brotherhood or motherland have equal status, at least in terms of group membership, whereas real family members have different degrees of relatedness and there is no fixed or firm way of defining family membership or boundaries. We need to search for a more fundamental factor that unites people and creates a strong bond among them.

At a deeper level, human communities are united by a well-known psychological bias which is believed to be universal. Studies of childhood development across cultures indicate that people everywhere tend to attribute certain essential qualities to human social categories such as race, ethnicity, or dress. This mental attitude has been used to generate notions of

“in-group” versus “out-group,” and to give coherence to a group where initially there was none, dramatically enhancing the group’s chance of survival. However, this can also lead us to see an “out-group” as a different biological species, increasing the risk of hostility and conflict. Throughout history, and likely through human prehistory, people have routinely organized themselves to fight or dominate others by seeing them as belonging to a different species.

- (B) 次の空所 (1) ~ (5) に入れるのに最も適した段落を 8 ~ 9 ページの a~e より選び、マークシートの (1) ~ (5) にその記号をマークせよ。ただし、同じ記号を複数回用いてはならない。

Is free speech merely a symbolic thing, like a national flag or motto? Is it just one of many values that we balance against each other? Or is free speech fundamental — a right which, if not absolute, should be given up only in carefully defined cases?

The answer is that free speech is indeed fundamental. It's important to remind ourselves why, and to have the reasons ready when that right is called into question.

The first reason is that the very thing we're doing when we ask whether free speech is fundamental — exchanging and evaluating ideas — assumes that we have the right to exchange and evaluate ideas. When talking about free speech (or anything else), we're *talking*. We're not settling our disagreement by force or by tossing a coin. Unless you're willing to declare, in the words of Nat Hentoff, "free speech for me but not for you," then as soon as you show up to a debate to argue against free speech, you've lost. It doesn't make sense to use free speech to argue against it.

(1)

Perhaps the greatest discovery in modern history — one that was necessary for every later discovery — is that we cannot trust the pre-scientific sources of belief. Faith, miracle, authority, fortune-telling, sixth sense, conventional wisdom, and subjective certainty are generators of error and should be dismissed.

(2)

Once this scientific approach began to take hold early in the modern age, the classical understanding of the world was turned upside down. Experiment and debate began to replace authority as the source of truth.

(3)

A third reason that free speech is fundamental to human flourishing is that it is essential to democracy and a guard against dictatorship. How did the monstrous regimes of the 20th century gain and hold power? The answer is that violent groups silenced their critics and opponents. And once in power, the dictatorship punished any criticism of the regime. This is still true of the governments of today known for mass killing and other brutal acts.

(4)

Common knowledge is created by public information. The story of “The Emperor’s New Clothes” illustrates this logic. When the little boy shouted that the emperor was naked, he was not telling others anything they didn’t already know, anything they couldn’t see with their own eyes. But he was changing their knowledge nonetheless, because now everyone knew that everyone else knew that the emperor was naked. And that common knowledge encouraged them to challenge the emperor’s authority with their laughter.

(5)

It’s true that free speech has limits. We may pass laws to prevent people from making dishonest personal attacks, leaking military secrets, and encouraging others to violence. But these exceptions must be strictly defined and individually justified; they are not an excuse to treat free speech as one replaceable good among many.

And if you object to these arguments — if you want to expose a flaw in my logic or an error in my ideas — it’s the right of free speech that allows you to do so.

- a) We also use speech as a weapon to undermine not just those who are in power but bullies in everyday life: the demanding boss, the boastful teacher, the neighbors who strongly enforce trivial rules.

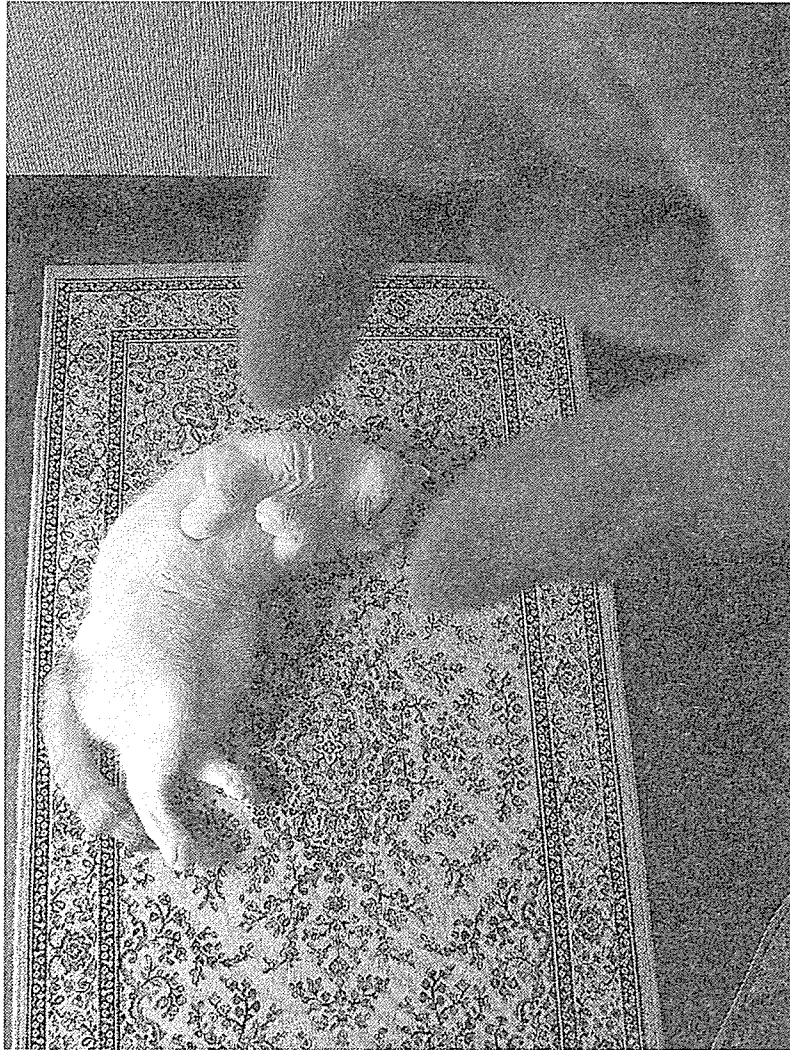
- b) Those who are unconvinced by this purely logical reasoning can turn to an argument from human history. History tells us that those who claim exclusive possession of truths on religious or political grounds have often been shown to be mistaken — often comically so.

- c) How, then, can we acquire knowledge? The answer is the process called hypothesis and testing. We come up with ideas about the nature of reality, and test them against that reality, allowing the world to falsify the mistaken ones. The hypothesis part of this procedure, of course, depends upon the exercise of free speech. It is only by seeing which ideas survive attempts to test them that we avoid mistaken beliefs.

- d) Why do these regimes allow absolutely no expression of criticism? In fact, if tens of millions of suffering people act together, no regime has the power to resist them. The reason that citizens don't unite against their dictators is that they lack common knowledge — the awareness that everyone shares their knowledge and knows they share it. People will expose themselves to a risk only if they know that others are exposing themselves to that risk at the same time.

e) One important step along this path was Galileo's demonstration that the Earth revolves around the sun, a claim that had to overcome fierce resistance. But the Copernican revolution was just the first in a series of events that would make our current understanding of the world unrecognizable to our ancestors. We now understand that the widely held convictions of every time and culture may be decisively falsified, doubtless including some we hold today, and for this reason we depend on the free exchange of new ideas.

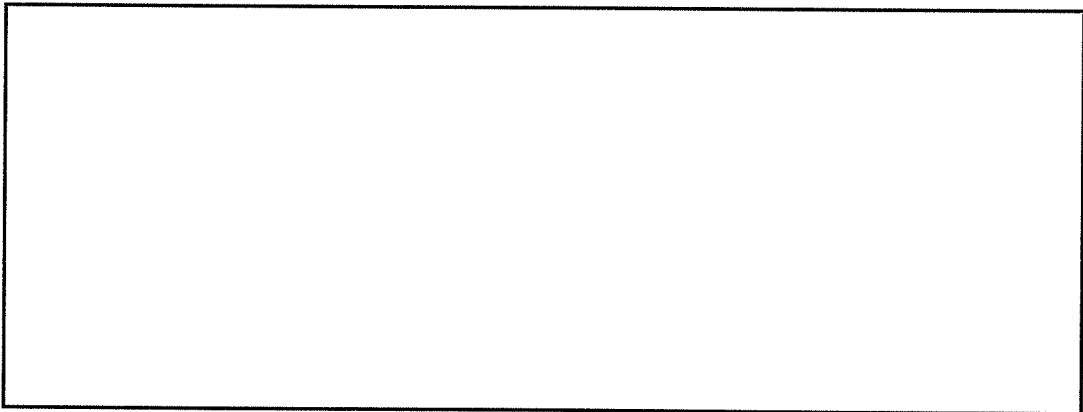
2 (A) 下の画像について、あなたが思うことを述べよ。全体で60~80語の英語で答えること。



(B) 次の文章を読んで、そこから導かれる結論を第三段落として書きなさい。
全体で50～70語の英語で答えること。

In order to study animal intelligence, scientists offered animals a long stick to get food outside their reach. It was discovered that primates such as chimpanzees used the stick, but elephants didn't. An elephant can hold a stick with its trunk, but doesn't use it to get food. Thus it was concluded that elephants are not as smart as chimpanzees.

However, Kandula, a young elephant in the National Zoo in Washington, has recently challenged that belief. The elephant was given not just sticks but a big square box and some other objects, while some fruit was placed just out of reach above him. He ignored the sticks but, after a while, began kicking the box with his foot, until it was right underneath the fruit. He then stood on the box with his front legs, which enabled him to reach the food with his trunk.



注 trunk ゾウの鼻

3 放送を聞いて問題 (A), (B), (C) に答えよ。

注 意

- ・ 聞き取り問題は試験開始後 45 分経過した頃から約 30 分間放送される。
- ・ 放送を聞きながらメモを取ってもよい。
- ・ 放送が終わったあとも、この問題の解答を続けてかまわない。

聞き取り問題は大きく三つに分かれている。(A) と (B) は内容的に連続している。(C) は独立した問題である。(A), (B), (C) のいずれも二回ずつ放送される。

(A) これから放送するのは、あるラジオ番組の一部である。これを聞き、(6) ~ (9) の問いに対して、それぞれ正しい答えを一つ選び、マークシートの (6) ~ (9) にその記号をマークせよ。

(6) According to the speaker, what was important about the sale of the painting?

- a) It was sold to an anonymous buyer.
- b) It was sold for much less than the estimate.
- c) It was sold during a historic online auction.
- d) It was sold at the highest price for any painting in a public auction.

(7) According to the speaker, how does Picasso's painting differ most clearly from the Delacroix painting that inspired it?

- a) The degree of originality.
- b) The location of the scene.
- c) The liveliness of the image.
- d) The number of women shown.

(8) According to the speaker, how is Picasso's painting connected to Henri Matisse?

- a) It was a gift from Picasso to Matisse.
- b) It uses colors that Matisse often used.
- c) It is based on themes borrowed from Matisse.
- d) It was Picasso's first painting after Matisse's death.

(9) According to the speaker, the price of the painting increased . . .

- a) from \$250,000 in 1956 to \$179,000,000 now.
- b) from \$32,000 in 1956 to \$179,000,000 in 1997.
- c) from \$32,000,000 in 1997 to \$179,000,000 now.
- d) from \$250,000 in 1956 to \$179,000,000 in 1997.

(B) これから放送するのは、(A)の続きである。司会者に加えて、女性 (Fatima Nasser) と男性 (Lucas Mendez) が出演している。これを聞き、(10)～(15)の問いに対して、それぞれ正しい答えを一つ選び、マークシートの(10)～(15)にその記号をマークせよ。

- (10) What does Fatima Nasser say about a painting's value?
- a) It is determined by the reputation of the artist.
 - b) It is determined by the artistic quality of the work.
 - c) It is determined by the budgets of major museums.
 - d) It is determined by the highest price that is offered for it.
- (11) According to Lucas Mendez, what can happen to the value of privately owned masterpieces?
- a) It can increase because they can no longer be criticized.
 - b) It can decrease because young artists cannot study them.
 - c) It can increase because museums continue to compete to display them.
 - d) It can decrease because private owners might not take sufficient care of them.
- (12) According to Lucas Mendez, why do people pay such high prices for paintings like this?
- a) Because they believe the paintings are masterpieces.
 - b) Because they believe their own social status will be enhanced.
 - c) Because they believe it is better than putting money in the bank.
 - d) Because they believe the paintings should be preserved for future generations.

- (13) Which of the following is not mentioned by Fatima Nasser as a reason why people buy art?
- a) To increase their wealth.
 - b) To educate their children.
 - c) To leave as an inheritance.
 - d) To appreciate the art itself.
- (14) On which point are Fatima Nasser and Lucas Mendez most likely to agree?
- a) “Women of Algiers” is a very good painting.
 - b) Roads and bridges should not be privately owned.
 - c) Selling artworks privately might reduce their value.
 - d) Paintings like “Women of Algiers” should be sold only to genuine art lovers.
- (15) What does the moderator say is the main topic of the next *Art in Focus*?
- a) A supposed fake that was found to be genuine.
 - b) A famous masterpiece that was found to be a fake.
 - c) A modern painter who sells his original paintings for millions of dollars.
 - d) A former criminal who is now earning a reputation for his own paintings.

(C) これから放送する講義を聞き、(16)～(20)の問いに対して、それぞれ正しい答えを一つ選び、マークシートの(16)～(20)にその記号をマークせよ。

- (16) What does the speaker say about mosquitoes biting people?
- a) 20% of people are rarely or never bitten.
 - b) 20% of people are bitten more often than others.
 - c) 20% of people are not protected from bites by insect spray.
 - d) Scientists have discovered a new treatment for bites that works for 20% of people.
- (17) Which of the following does the speaker not say?
- a) Mosquitoes bite people in order to get proteins from them.
 - b) Most people release a chemical indicating their blood type.
 - c) 15% of mosquitoes are unable to distinguish a person's blood type.
 - d) People with Type B blood are bitten by mosquitoes more often than people with Type A blood.
- (18) According to the speaker, what is one reason why children are bitten less than adults?
- a) Children move around more than adults.
 - b) Children have smoother skin than adults.
 - c) Children breathe out less CO₂ than adults.
 - d) Children notice mosquitoes on their skin more than adults.

- (19) According to the speaker, why do people tend to get bitten on their ankles and feet?
- a) Because those parts of the body tend to be exposed.
 - b) Because those parts of the body tend to sweat more.
 - c) Because those parts of the body have a lot of bacteria.
 - d) Because those parts of the body are not as sensitive to the touch.
- (20) What is the “good news”?
- a) It might be possible to modify mosquito genes so they do not bite people.
 - b) It might be possible to modify human genes to keep mosquitoes away naturally.
 - c) Natural blood proteins might be utilized to make people resistant to mosquito bites.
 - d) Chemicals naturally produced by mosquito-resistant people might be utilized to make more effective sprays.

- 4 (A) 次の英文の段落 (21) ~ (25) にはそれぞれ誤りが一つある。誤った箇所を含む下線部を各段落から選び、マークシートの (21) ~ (25) にその記号をマークせよ。

(21) Knowledge is our most important business. The success of [a]almost all our other business depends on it, but its value is not only economic. The pursuit, production, spread, application, and preservation of knowledge are the [b]central activities of a civilization. Knowledge is social memory, a connection to the past; and it is social hope, an investment in the future. The ability to create knowledge and [c]put use to it is the key characteristic of humans. It is how we [d]reproduce ourselves as social beings and how we change — how we keep [e]our feet on the ground and our heads in the clouds.

(22) Knowledge is a form of capital [a]that is always unevenly distributed, and people who have more knowledge, or greater access to knowledge, enjoy advantages [b]over people who have less. [c]This means that knowledge stands in a close relation to power. We speak of [d]“knowledge for their own sake,” but there is nothing we learn [e]that does not put us into a different relation with the world — usually, we hope, a better relation.

(23) As a society, we are committed to the principle that the production of knowledge should be unrestricted and [a]access it should be universal. This is a democratic ideal. We think that where knowledge is concerned, [b]more is always better. We don't believe that there are things that [c]we would rather not know, or things that [d]only some of us should know — just as we don't believe that there are points of view that should not be expressed, or citizens [e]who are too ignorant to vote.

(24) We believe that the more ^[a]information and ideas we produce, and the more ^[b]people we make them available, the better our chances of making good decisions. We therefore make a large social investment ^[c]in institutions whose purpose is simply the production and spread of knowledge — that is, research and teaching. ^[d]We grant these institutions all kinds of protections, and we become worried, sometimes angry, when we suspect that they are not working ^[e]the way we want them to.

(25) Some of our expectations about colleges and universities are unrealistic (^[a]and so some are of our expectations about democracy). Teaching is a messy process, an area in which success can be hard to measure ^[b]or even to define. Research is messy, too. The price for every good idea or scientific claim is ^[c]a lot of not-so-good ones. We can't reasonably expect that every student will be well educated, or that every piece of scholarship or research will be worthwhile. But we want to believe that the system, ^[d]as large and diverse as it is, is working for us and not against us, and ^[e]that it is enabling us to do the kind of research and teaching that we want to do.

(B) 次の英文を読み、下線部(ア), (イ), (ウ)を和訳せよ。

News reports from Afghanistan in the 1990s tended to portray little more than a ruined place, destroyed by extremist military groups. Such images were rarely balanced by insights into ordinary life. Countries at war are described by reporters who tend, especially in dangerous places, to stay together, reporting only on isolated events. (ア)In Kabul, visiting television crews invariably asked to be taken to the worst-hit parts of the city; one reporter even described Kabul as “ninety percent destroyed.”

Wars complicate matters: there is a terrible fascination to war which tends to overshadow less dramatic news. Conflict is a notoriously difficult thing to convey accurately. Fighting comes and goes, and modern conflicts move with an unpredictable will of their own. Key battles are fought overnight and absorbed into the landscape. (イ)Even a so-called war zone is not necessarily a dangerous place: seldom is a war as comprehensive as the majority of reports suggest.

Yet there was a deeper obstacle to describing the place: Afghanistan was, to outsiders, a broken mirror, yielding an image as broad or narrow as the observer’s gaze. (ウ)Even in peacetime Afghanistan had been open to outsiders for only a brief interval, a forgotten period from the 1960s until the 1970s. It had never been a single nation but a historically improbable mixture of races and cultures, each with its own treasures of customs, languages and visions of the world.

5 次の文章を読み, (A) ~ (D) の問いに答えよ。

Last year, there was great public protest against the use of “anti-homeless” spikes outside a London residential complex, not far from where I live. The spikes were sharp pieces of metal stuck in concrete to keep people from sitting or lying on the ground. Social media were filled with anger, a petition was signed, a sleep-in protest undertaken, and within a few days the spikes were removed. But the phenomenon of “defensive” or “hostile” architecture, as it is known, remains common.

From bus-shelter seats that lean forward, to water sprinklers, hard tube-like rests, and park benches with solid dividers, urban spaces are aggressively (26) soft, human bodies.

We see these measures all the time within our urban environments, whether in London or Tokyo, but we fail to grasp ^(A)their true intent. I hardly noticed them before I became homeless in 2009. An economic crisis, a death in the family, a sudden divorce and an even more sudden mental breakdown were all it took for me to go from a more than decent income to being homeless in the space of a year. It was only then, when I started looking around my surroundings with the distinct purpose of (27) shelter, that the city’s cruelty became clear.

I learned to love London Underground’s Circle Line back then. To others it was just a rather inefficient line on the subway network. To me — and many homeless people — it was a safe, dry, warm container, continually travelling sometimes above the surface, sometimes below, like a giant needle stitching London’s center into place. Nobody bothered you or made you move. You were allowed to take your poverty on tour. But engineering work put a stop to that.

Next was a bench in a smallish park just off a main road. It was an old, wooden bench, made smooth by thousands of sitters, underneath a tree with

leaves so thick that only the most persistent rain could penetrate it. Sheltered and warm, this was prime property. Then, one morning, it was gone. In its place stood an uncomfortable metal perch, with three solid armrests. I felt such loss that day. The message was clear: I was not a member of the public, at least not of the public that is welcome here. I had to find somewhere else to go.

There is a wider problem, too. These measures do not and cannot distinguish the homeless from others considered more (28). When we make it impossible for the poor to rest their weary bodies at a bus shelter, we also make it impossible for the elderly, for the handicapped, for the pregnant woman who needs rest. By making the city less (29) of the human body, we make it less welcoming to all humans.

Hostile architecture is (30) on a number of levels, because it is not the product of accident or thoughtlessness, but a thought process. It is a sort of unkindness that is considered, designed, approved, funded and made real with the explicit motive to threaten and exclude.

Recently, as I walked into my local bakery, a homeless man (whom I had seen a few times before) asked whether I could get him something to eat. When I asked Ruth — one of the young women who work behind the counter — to put a couple of meat pies in a separate bag and ^(B)explained why, her remark was severe: “He probably makes more money than you from begging, you know,” she said, coldly.

He probably didn't. Half his face was covered with sores. A blackened, badly injured toe stuck out of a hole in his ancient shoe. His left hand was covered in dry blood from some recent accident or fight. I pointed this out. Ruth was unmoved by my protest. “I don't care,” she said. “They foul the green area. They're dangerous. Animals.”

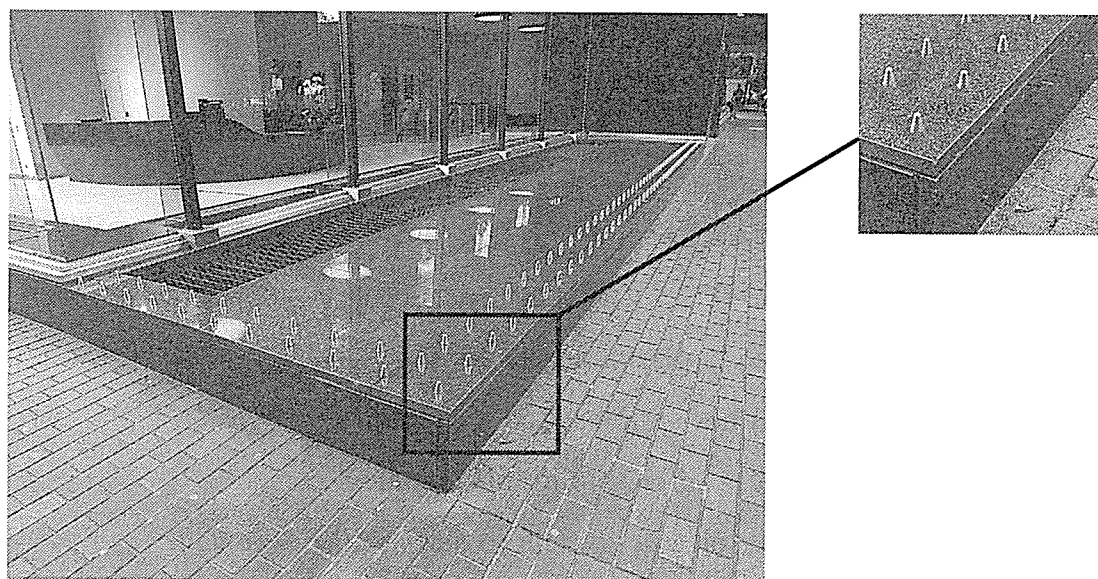
It's precisely this viewpoint that hostile architecture upholds: that the homeless are a different species altogether, inferior and responsible for their fall. Like pigeons to be chased away, or urban foxes disturbing our sleep with their

screams. “You should be ashamed,” jumped in Libby, the older lady who works at the bakery. ^(C) “That is someone’s son you’re talking about.”

Poverty exists as a parallel, but separate, reality. City planners work very hard to keep it outside our field of vision. It is too miserable, too discouraging, too painful to look at someone sleeping in a doorway and think of him as “someone’s son.” It is easier to see him and only ask the question: ⁽³¹⁾ “How does his homelessness affect me?” So we cooperate with urban design and work very hard at not seeing, because we do not want to see. We silently agree to this apartheid.

Defensive architecture keeps poverty unseen. It conceals any guilt about leading a comfortable life. It brutally reveals our attitude to poverty in general and homelessness in particular. It is the concrete, spiked expression of a collective lack of generosity of spirit.

And, of course, it doesn’t even achieve its basic goal of making us feel safer. ⁽³²⁾ There is no way of locking others out that doesn’t also lock us in. Making our urban environment hostile breeds hardness and isolation. It makes life a little uglier for all of us.



Spikes outside an office building in London

(A) 下線部 (A) は具体的にどのような内容を表すか、日本語で述べよ。

(B) 下線部 (B) で、語り手は具体的に何が何のためであったと説明したか、日本語で述べよ。

(C) 下線部 (C) で言われていることを次のように言い換える場合、空所に入る最も適切な一語を 23～25 ページの本文中からそのまま形を変えずに選んで書きなさい。なお、空所 (26) ～ (30) の選択肢を書いてはならない。

The man you're talking about is no less () than you are.

(D) 以下の問いに答え、解答の記号をマークシートにマークせよ。

(ア) 空所 (26) ～ (30) には単語が一つずつ入る。それぞれに文脈上最も適切な語を次のうちから一つずつ選び、マークシートの (26) ～ (30) にその記号をマークせよ。同じ記号を複数回用いてはならない。

- | | | | |
|--------------|---------------|--------------|--------------|
| a) accepting | b) depriving | c) deserving | d) finding |
| e) forcing | f) implying | g) raising | h) rejecting |
| i) revealing | j) satisfying | | |

(イ) 下線部 (31) はどのような考えを表しているか、最も適切なものを一つ選び、マークシートの (31) にその記号をマークせよ。

- a) Seeing this homeless person upsets me.
- b) His homelessness has an impact on everyone.
- c) I wonder how I can offer help to this homeless person.
- d) This homeless person has no right to sleep in the doorway.
- e) I wonder whether this homeless person has any relevance to my life at all.

(ウ) 下線部 (32) はどのような考えを表しているか、最も適切なものを一つ選び、マークシートの (32) にその記号をマークせよ。

- a) Defensive architecture harms us all.
- b) Ignoring homelessness won't make it go away.
- c) Restrictions on the homeless are for their own good.
- d) Homeless people will always be visible whatever we do.
- e) For security, we have to keep homeless people out of sight.

問題 A

Welcome to *Art in Focus*, our weekly discussion of news and controversies in art around the globe. Last week we discussed the financial challenges facing young artists, particularly those working in digital media, where countless completely identical copies can be made of any individual work by anyone with a small amount of know-how. The big news of this week presents a thought-provoking comparison. A work of art from the pre-digital age has broken all records for a public auction. A famous painting called “Women of Algiers,” by Pablo Picasso, was recently sold for 179 million dollars, a new world record. The auction room grew quiet as the price went up and up. Then people clapped and cheered at the final price—20 million over the estimate! According to the auctioneer, it was—quote—“One of the greatest moments in auction history!”

The work is the last of a series of 15 paintings which Picasso produced in a burst of creativity during 1954 and 1955. The subject of the paintings was inspired by a work of a similar name, “Women of Algiers in their apartment,” by the French artist Eugène Delacroix, painted in 1834, featuring three women relaxing inside an apartment. But while the Delacroix original is painted in a realistic style, almost like a photograph, the Picasso version distorts the image in various ways, showing different angles at the same time. Where the original shows a dim and quiet scene, Picasso paints a scene full of movement and color.

Picasso finished the series on Valentine’s Day, 1955. His great friend and rival, Henri Matisse, had died the previous year, and Picasso’s painting takes up themes and ideas from Matisse. It is, in part, a tribute to the memory of his dead friend.

The painting also illustrates the strong influence of inflation in the art market. The entire series of 15 paintings was bought in 1956 for a quarter of a million dollars. In 1997, this painting alone sold for 32 million dollars. And now, less than 20 years later, it has sold for 179 million. This kind of rapid rise in prices would make any investor sit up and take notice, and we are now experiencing a global boom in the sale of artworks by well-known artists. But are these artworks really worth what people are

paying for them? Could any painting really be worth hundreds of millions of dollars? Is there any limit to this? And most importantly of all, what happens when art museums, many of which are funded by taxpayers, can't afford to buy art anymore? Next, we'll take up these issues with two experts.

問題B

A (Moderator): I'm joined here in the studio by two experts on modern art, to discuss this remarkable news. Lucas Mendez is a specialist in twentieth-century art who writes for the magazine *Image*, and is the author of a book on Picasso. Fatima Nasser is an economist with special interest in the art market, and intellectual property in general.

Let me turn to you first, Fatima. I suppose many people will be asking whether any work of art can possibly be worth so much...

B (Fatima Nasser): Well, of course, anything is worth what someone is willing to pay for it. If someone wants to pay 179 million dollars, as the former Prime Minister of Qatar did on this occasion, then that's what the painting is worth. If no one were willing to pay a cent for this painting, then it wouldn't be worth anything.

C (Lucas Mendez): No, I can't agree with that. *Value* isn't the same thing as *price*. A thing's price can be out of line with its true value, or—as in this case—can actually diminish its value.

A: What do you mean—*diminish* its value?

C: When a great work of art goes into private ownership like this, what tends to happen is that it disappears from view. It's true, private owners do lend to museums and galleries, for limited periods. But in most cases, the work disappears into private storage.

Museums can't compete with these inflated prices, and the result is that important works like Picasso's "Women of Algiers" are not seen, by the public, by critics, and worst of all, not seen by young artists. That reduces their influence *and* their

value.

- B: I suppose you don't deny that people have the right to spend their money as they choose? If public institutions like museums can't compete, then it's up to the government to give them more money. And that means it's up to people like *you*, Lucas, to persuade politicians to do that.
- C: Don't you think that some things belong to everybody? If everything just went to whoever pays the most, as you suggest, we'd be willing to sell historic buildings or documents, for example. In my opinion, it's criminal to sell national treasures; they just shouldn't be for sale. And this painting, I believe, is an *international treasure*.
- A: Let's talk about another point. Why is it, Fatima, that people are prepared to pay so much? Do they really love art that much?
- B: Well...
- C: Of course not! It's an investment. People believe that the price of a masterpiece like "Women of Algiers" can only go up. They're just looking for somewhere to invest their money. They know that rates of interest paid by banks are low, so...
- B: Wait a minute! It's no business of ours what motivates people to buy. They can buy for any reason they like. It might be love of art—it really is a very nice painting after all. Or it might be as a legacy for their children. It might be as part of a collection. Or it might be as a pure investment. We can't go around saying that people must only buy things for motives we approve of. That's just far too much state control of the individual.
- C: Not at all. Some things are so important that they can't be trusted to private ownership: basic infrastructure like roads and bridges, defense, protection of the environment. All I'm saying is that culture has that sort of importance too.
- A: Well, as you can see, this is a topic which causes strong disagreements. We have

to leave our discussion there. Thank you both. On a personal note, I can tell you that I wouldn't pay that much for the painting myself. I'm not even sure I *like* it! A photo of the painting is currently up on our website, so you can decide for yourself.

And next week, we look at a very different side of the art business. We tell the story of a painter who is so good at copying the style of old masters that he once made millions of dollars from selling fakes. He was eventually caught and jailed, but his skill as a painter has made him one of the most popular up-and-coming artists for his own paintings. That's next week on *Art in Focus*.

問題C

You come in from a summer hike covered with red mosquito bites, only to have your friends say that they haven't been bitten at all. Or you wake up from a night of camping to find your ankles and wrists burning with bites, while other people are untouched.

You're not alone. It turns out that an estimated 20% of people are especially delicious to mosquitoes, and regularly get bitten more often than others. And while scientists don't yet have a treatment for the condition, other than insect spray, they do have a number of ideas about why some of us are bitten more often than others.

One factor that could play a role is blood type. This would not be surprising since, after all, mosquitoes bite us to take proteins from our blood, and research shows that they find certain blood types more appetizing than others. One study found that in a controlled setting, mosquitoes landed on people with Type O blood nearly twice as often as those with Type A. People with Type B blood fell somewhere in the middle. Additionally, based on their genes, about 85% of people release a chemical signal through their skin that indicates which blood type they have, while 15% do not. And mosquitoes are more attracted to people who release that chemical regardless of which type they are.

One of the key ways mosquitoes locate their targets is by smelling the CO₂ emitted in their breath. They can detect CO₂ from as far as 50 meters away. As a result, people

who simply breathe out more air—generally, larger people—have been shown to attract more mosquitoes than others. This is one of the reasons why children generally get bitten less than adults.

Other research has suggested that the bacteria that naturally live on human skin also affect our attractiveness to mosquitoes. In a 2011 study, scientists found that having large amounts of bacteria made skin more appealing to mosquitoes. This might explain why mosquitoes are especially likely to bite our ankles and feet, which naturally have significant bacteria colonies.

As a whole, underlying genetic variation is estimated to account for 85% of the differences between people in their attractiveness to mosquitoes—regardless of whether it's expressed through blood type or other factors. Unfortunately, we don't yet have a way of modifying these genes. But there is good news: some people rarely attract mosquitoes and are almost never bitten. A group of scientists in the UK have identified some chemicals emitted by these people. This discovery may lead to advanced insect sprays that can keep mosquitoes away from all of us, even the delicious 20%.

<http://www.smithsonianmag.com/science-nature/why-do-mosquitoes-bite-some-people-more-than-others-10255934> を編集