

I. 次の文章を読んで、設問に答えなさい。

Between 1880 and 1914, nearly 3 million Italians migrated to the US. When they arrived, many of them were bitterly disappointed. [A] Their new home was not the paradise they had thought it would be. It is said that many of them wrote back home, saying 'not only are the roads not paved with gold, they are not paved at all; in fact, we are the ones who are supposed to pave them.'

Those Italian immigrants were not alone in thinking that the US is where dreams come true. The US became the richest country in the world only around 1900, but even in the early days of its existence, it had a strong hold on the imagination of poor people elsewhere. In the early nineteenth century, ⁽¹⁾US per capita income was still only around the European average and something like 50 percent lower than that of Britain and the Netherlands. [B] But poor Europeans still wanted to move there because the country had an almost unlimited supply of land (well, if you were willing to push out a few native Americans) and an acute labor shortage, which meant wages three or four times higher than those in Europe. < X >

It is not just prospective immigrants who are attracted to the US. Especially in the last few decades, businessmen and policy-makers around the world have wanted, and often tried, to emulate the US economic model. [C] Its free enterprise system, according to admirers of the US model, lets people compete without limits and rewards the winners without restrictions imposed by the government or by misguided egalitarian culture. The system therefore creates exceptionally strong incentives for entrepreneurship and innovation. Its free labor market, with easy hiring and firing, allows its enterprises to be agile and thus more competitive, as they ⁽²⁾can redeploy their workers more quickly than their competitors, in response to changing market conditions. [D] However, its proponents argue, even the 'losers' in this game willingly accept such outcomes because, given the country's high social mobility, their own children could be the next Thomas Edison, J. P. Morgan or Bill Gates. With such incentives to work hard and exercise ingenuity, no wonder the country has been the richest in the world for the last century.

[Adapted from Chang, Ha-Joon. *23 Things They Don't Tell You about Capitalism*,
PENGUIN BOOKS (2011)]

注：per capita income 「一人あたりの収入」

問 1. 下線部(1)の it, (2)の they が示す内容をそれぞれ本文より探して英語で書きなさい。

問 2. 次の文を[A], [B], [C], [D]のいずれかに挿入する場合, どこが適切な箇所か。1つ選び, その記号を書きなさい。

With entrepreneurs richly rewarded and workers having to adapt quickly, the system does create high inequality.

問 3. 〈 X 〉に入る最も適切な文を以下の 1～4 から 1つ選び, その番号を書きなさい。

1. A small, but not negligible, part of de-industrialization is due to optical illusions, in the sense that it reflects changes in statistical classification rather than changes in real activities.
2. In order to take into account the differential prices of non-traded goods and services across countries, economists have come up with the idea of an 'international dollar.'
3. More importantly, the fact that the citizens of a country work longer than others in comparable countries does not necessarily mean that they like working long hours.
4. Most importantly, the lack of feudal legacy meant that the country had much higher social mobility than the Old World countries, as celebrated in the idea of the American dream.

II. 次の文章を読んで設問に答えなさい。

Every day in the United States alone more than a million birds and animals die on the nation's roads and highways, and because so many species are nocturnal or crepuscular, more than half of this carnage occurs at night. These nighttime collisions are incredibly costly to humans as well. In fact, at least statistically, deer are far more dangerous than mountain lions or bears or, certainly, wolves. Every year in the United States more than two hundred people are killed in deer-vehicle collisions, the most dramatic result of the more than one million annual deer-vehicle collisions that cause ten thousand personal injuries and (a) more than \$1 billion in damages (and, of course, the deer do not fare well, either). Studies show that increasing highway lighting to reduce such collisions is ineffective, and actually makes it far more difficult for wildlife active at night, at dusk and dawn, to (b) collisions. Animal eyes that see so well in darkness or dim light — blessed with more rods than cones — are blinded by our headlights and streetlights. “On the issue of designing highway lighting to minimize road kill mortality,” writes Paul Beier in *Ecological Consequences of Artificial Night Lighting*, “our knowledge of mammalian vision is sufficient to conclude that, from the animal’s perspective, less is better.”

Less light on our roads, fewer streetlights and not so bright, is not only better for wildlife but safer for us — we (c) slower and pay more attention when we have to rely on our headlights.

But how to do with less light on our streets and highways? One innovative concept comes from a design cooperative in San Francisco called Civil Twilight. Their award-winning idea: streetlights that respond to moonlight, or “lunar-resonant streetlights.” Relying on LEDs and highly sensitive photosensors, they would allow the level of brightness from the streetlight to balance the level of light from the moon. On nights when there is no moon, or just a crescent, the streetlights would provide enough light for pedestrians and drivers. On full-moon nights, the streetlights would dim to barely on. Civil Twilight estimates that their idea could save more than three-quarters of the money spent on streetlights, as well as bring the ambience of moonlight back to our streets.

The idea borrows from an old one. In the eighteenth and nineteenth centuries, street lighting was still intimately tied to the changes in seasonal light and the moon’s monthly phases. In Paris, even after the advent of gas lighting in the 1840s, two kinds of lanterns were used, one that burned all night, and another that was lit only when the moon in the streets didn’t (d) enough light. Even into the early twentieth century, many municipalities planned their lighting schedules in relation to the moon. Long before Paris was the City of Light, it was, as every city in the world, a city of moonlight.

[Bogard, Paul. *The End of Night*, FOURTH ESTATE (2014)]

注：crepuscular 「薄明に活動する」 rods 「桿体細胞(網膜内の感覚細胞)」

cones 「錐体細胞(網膜中心部にある感覚細胞)」

問 1. (a)～(d)に入る最も適切な語を1～4の中から選び、その番号を書きなさい。ただし、それぞれの語は1回ずつしか使えません。

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|----------|----------|----------|---------|
| 1. avoid | 2. offer | 3. drive | 4. cost |
|----------|----------|----------|---------|

問 2. 下線部(1), (2), (3), (4)の語の本文中の意味と最も近い意味を持つ語を、それぞれ1～4の中から1つずつ選び、その番号を書きなさい。

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|---------------|---------------|---------------|---------------|--------------|
| (1) carnage: | 1. shudder | 2. massacre | 3. slavery | 4. mismatch |
| (2) fare: | 1. get on | 2. get in | 3. take in | 4. take on |
| (3) ambience: | 1. advantage | 2. atmosphere | 3. expression | 4. vagueness |
| (4) advent: | 1. compliment | 2. prediction | 3. arrival | 4. erosion |

問 3. 本文の趣旨と最も合う内容を持つ文を1～5の中から1つ選び、その番号を書きなさい。

1. More than a million birds and animals die by nighttime collisions every night.
2. Deer are dangerous animals and have injured ten thousand people so far.
3. Making highway lighting dimmer will reduce animal-vehicle collisions at night.
4. Lunar-resonant streetlights waste three-quarters of the money spent on streetlights.
5. The idea of Civil Twilight is borrowed from the old one in the early twentieth century.

問 4. 下線部(5)の文で、著者は Paris が、昔は a city of moonlight であったとしているが、なぜそのように言えるのか。解答欄に収まるように日本語でその理由を書きなさい。

III. 次の文章を読んで設問に答えなさい。

We are conscious of our surroundings and of ourselves. Some brain structures are crucial to consciousness, like the cerebral cortex, the thalamus (where we receive sensory information), and the white matter, the nerve fibers linking these structures. After a brain infarct on the right side of the brain, both self-consciousness and consciousness of surroundings can be impaired. It's possible for a person not to be aware that they are paralyzed on the left side and to ignore everything on their left, not just in terms of their (1) but also of their own body. This is known as neglect. If you approach such a patient's bed from the left, even though he can turn his head and see you, he won't notice you. When reading a newspaper, such patients will look only at the right-hand page, and when drawing, will draw only the right side of an object. They eat only what is on the right half of their plates. If you then turn the plate around 180 degrees, they will eat the other half. Neglect can extend to the left half of their bodies. They no longer regard their left arm or their left leg as part of themselves. They were robbed their right to live. They will dress or wash only their right side, and comb their hair only on the right side of their heads.

Neglect patients frequently make up extremely imaginative stories to explain the bizarre situation in which they find themselves. Some claim that the hospital is their home and that they have chosen the furniture themselves. One (2) remained convinced that her left side was fully functional and that she was physically independent. Yet in her drawings, the left half was completely lacking. [X] When she was asked to move her left arm, she answered, "I could do that, but it would be better if I rested it now." When she was asked to walk a few steps after she had claimed that there was nothing wrong with her, her response was, "Of course I could, but the doctors said I should rest."

The mother of a good friend of ours suffered a severe brain infarct on the right side when she was eighty-five, [Y]. Her mind was still sharp, though, and she hadn't lost her sense of humor. Indeed, her conversations with relatives, friends, and the nursing staff were perfectly normal, with one striking exception. One day she told me that she'd had a really odd dream in which she had a third arm. I carefully took hold of her paralyzed left arm and asked her, "Is this that third arm?" "No," she said, "of course not, that's Kees." Kees was her fifty-five-year-old son. "What is Kees doing here?" I asked. "He's sleeping in my bed, as he always does." This was nonsense; I knew the family very well. "But tonight I needed him," she went on, "and I couldn't wake him up. The same thing happened the night before, when Kitty [her daughter's friend, who visited her nearly every day and was very close to her] was (3) here, and I couldn't wake her up either," she continued somewhat huffily. She asked if she could have something to drink and went on to speak perfectly normally about all kinds of matters that she wanted to arrange.

The fantasies that arise in the case of neglect in fact spring from a very general principle. [Z], it starts to make up information to fill the gaps. A damaged brain deprived of its customary input invents bizarre stories. It does similar things to compensate for the lack of oral or visual information or information from the memory or limbs. Unconsciously filling up the little holes in our memory is something the brain does on a daily basis, even when it's intact. We're convinced that events happened exactly as we remember them and will state as much under oath in court. In fact, our brains are just knitting neat (4) out of the countless scraps of information they receive, leading to all kinds of consequences.

[Adapted from Swaab, Dick. *We Are Our Brains*. PENGUIN BOOKS (2015)]

問 1. (1)～(4)のそれぞれに入る英単語 1 語を本文の中から選んで書きなさい。

問 2. 以下の設問の答えとして最も適切なものを 1 つ選び、その記号を書きなさい。

1. Choose the best title for the passage from the titles below.

- (A) Neglect: Half a Life
- (B) Causes of Infarct
- (C) Infarct: What's inside
- (D) Brain Structures

2. According to the passage, why can't some patients regard their left limbs as part of themselves?

- (A) They reasoned that brain's left side was severely impaired.
- (B) They were unaware where a brain infarct occurred.
- (C) They injured their head right where it had been hurt before.
- (D) They had an infarction on the right side of the brain.

3. According to the passage, which one of the following is true about Kees' mother?

- (A) She could hardly carry a normal conversation.
- (B) She could arrange all kinds of matters by herself.
- (C) She once dreamed of her son having a third arm.
- (D) She regarded her paralyzed left arm as her son.

4. Which one of the following can be inferred from the passage?
- (A) We must be convicted only by what is stated under oath in court.
 - (B) Brains may work well when patients are in their right mind.
 - (C) Weird stories result from the lack of customary input in damaged brains.
 - (D) The more information our brains receive, the more imagination we can have.
5. Which one of the following fills in the blank [X]?
- (A) As a matter of fact, her better half passed away years ago.
 - (B) "If it isn't there, then I can't be ignoring it," she countered.
 - (C) She, however, admitted that she couldn't use her left arm.
 - (D) "Yes, I miss my half brother," she responded.
6. Which one of the following fills in the blank [Y]?
- (A) which made her paralysis leave
 - (B) and she too had a disease on her arms
 - (C) being left paralyzed on the left side
 - (D) while she was in a coma
7. Which one of the following fills in the blank [Z]?
- (A) If enough information is given but it is neglected
 - (B) If the brain doesn't create some gaps for sensory information
 - (C) If a neglected person is not fully informed of the fantasies
 - (D) If something gets in the way of the brain's information supply

問 3. 下線部[W]を日本語に訳して解答欄に書きなさい。

問 4. 本文中には、文脈に合わず、しかも語法に誤りのある1文があります。その文に of を適切な位置に挿入し、書きなさい。

IV. 次の日本語の文を英語に訳しなさい。

例えば、どんな人がガンになりやすいか？と訊かれ、網羅的な答えをしても意味がない。結局は「タバコは身体によくありません」など一般的な話しかできなくなってしまいます。

[大室正志(著) 『産業医が見る過労自殺企業の内側』 集英社新書 (2017)]