

英 語

〈監督者の指示があるまで開いてはいけない〉

1. 試験開始後、まず解答用紙に自分の受験番号と氏名を正しく記入しなさい。
2. 試験開始後、速やかに問題冊子に落丁や乱丁がないか確認しなさい。
落丁や乱丁があった場合は、手を挙げなさい。
3. 下書きは問題冊子の余白を利用しなさい。
4. 記入中でない解答用紙は必ず裏返しにしておきなさい。
5. 問題冊子は試験終了後、持ち帰ってもよい。
ただし、試験途中では持ち出してはいけない。

I . Read the following passage and answer the questions that follow.

The study of the frequency and distribution of diseases in populations is called epidemiology. It involves examining data about populations of patients to find patterns of illness that can help identify the cause of a disease. A physician named John Snow working in London in the mid 19th century is generally (A) as being the father of epidemiology. Dr. Snow had an intense interest in the infectious disease cholera, and his discovery of how cholera is transmitted is a fascinating medical detective story.

Cholera is an infection of the small intestine caused by the bacteria *Vibrio cholerae*. The cholera bacteria release toxins that damage the lining of the intestine. This causes the intestines to release a large amount of fluid, resulting in severe diarrhea and dehydration. About half of patients die, some in just a few hours after the appearance of symptoms. It is most often contracted by ingesting food or water (B) with feces containing the bacteria.

Cholera first showed up in Europe in the 1830s and spread quickly, killing thousands of people and causing a panic. Doctors did not know what caused it, but the most popular theory was that it was caused by miasma, or bad air, that came from people living close together in dirty conditions. A few doctors (C) that cholera might be caused by bacteria. However, since doctors who treated cholera patients did not catch the disease, it was assumed that cholera was not contagious and, thus, not caused by bacteria.

Snow theorized that cholera was spread through water. He noted that it infected the intestines rather than the lungs, so it was (D) that bad air was the culprit. Then, in 1854, he got a chance to test his theory when a cholera outbreak occurred among residents of the Broad Street area of London. Most people in London got their water from public water pumps. Snow inspected the water from the Broad Street pump and found nothing wrong. However, he continued his search and took the names and addresses of almost 200 people who had died of cholera in the area and pinpointed them on a map. They were almost all clustered around the Broad Street water pump. Some of the victims lived closer to another pump, but, by questioning their neighbors, he discovered that these victims had also used the Broad Street pump.

To Snow, this was conclusive evidence. He convinced town officials to remove the handle from the Broad Street pump so no one could use it. The cholera outbreak ended shortly afterward, although Snow himself was uncertain whether the removal of the pump handle was the reason or if the outbreak was already (E) naturally. Later investigation showed that water from the Broad Street pump was being contaminated from a nearby broken cesspool that was leaking raw sewage containing fecal bacteria. This proved that the water from that pump was the cause of the outbreak.

Snow was also able to show that having clean water was important for preventing cholera when

he conducted a study that he called the Grand Experiment. He looked at the health records of two otherwise (F) London neighborhoods that were served by different water companies. One company got its water from the Thames river upstream from London, where the water was clean. The other company drew its water from the Thames river in the middle of London, where there was a lot of sewage. Snow's analysis showed that the people who got their water from the dirty part of the Thames had a higher incidence of cholera.

With these two investigations, the field of epidemiology was born. Snow used statistical data and logical reasoning to disprove the miasma theory of cholera and forever changed how disease is studied. Twenty years later, a young Japanese doctor studying medicine in London learned about Dr. Snow's method of epidemiology. When that doctor returned to Japan, he used the same method to solve the beriberi crisis in the Japanese navy, which was also thought to be caused by miasma but was in fact a nutrition problem. That doctor's name was Kanehiro Takaki, and he later founded The Jikei University School of Medicine.

1. Choose the correct word from the list to fill in blanks (A)~(F) and write the number in the space on the answer sheet.

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|-----|---------------|--------------|---------------|--------------|
| (A) | 1. certified | 2. promoted | 3. approved | 4. credited |
| (B) | 1. unclean | 2. filled | 3. tainted | 4. ruined |
| (C) | 1. challenged | 2. doubted | 3. confirmed | 4. suspected |
| (D) | 1. unlikely | 2. probable | 3. reasonable | 4. obvious |
| (E) | 1. belittling | 2. subsiding | 3. descending | 4. falling |
| (F) | 1. diseased | 2. diverse | 3. similar | 4. ordinary |

2. Which answer provides the best description of epidemiology?

1. The study of population patterns and statistics of infectious diseases
2. The study of the evidence for the transmission of diseases
3. The study of how disease spreads through groups of people
4. The study of how to use statistical data to predict and prevent the spread of disease

3. What was commonly believed about cholera at the time John Snow was doing his investigations?

1. It was an infectious disease from overcrowding that led to foul air and miasma.
2. It was a nonbacterial disease spread by putrid air and unsanitary surroundings.
3. It was a disease contracted from contact with bacteria-laden polluted water.
4. It was a contamination of the lungs that follows an infectious disease.

4. Why did doctors think that cholera was caused by something other than bacteria?
 1. It appeared not to be transmissible through close contact.
 2. It did not seem to infect the lungs of its patients.
 3. It was not known at that time that bacteria could infect the intestines.
 4. It was primarily contracted by people living close together.

5. What was John Snow's speculation about the Broad Street outbreak?
 1. It was stopped by removing the handle from the water pump.
 2. The victims of the outbreak were all clustered in the same area.
 3. Transmission was through the municipal drinking supply.
 4. Cholera was the cause of neither dirty living conditions nor miasma.

6. What convinced John Snow that his earlier theory about the cholera outbreak was correct?
 1. His investigation of the water from the Broad Street pump revealed bacteria.
 2. The discovery of the broken cesspool was proof of where the cholera came from.
 3. All of the victims of cholera were found to draw their water from the same source.
 4. The outbreak ended shortly after the handle was removed from the water pump.

7. How was John Snow able to establish that water quality was a risk factor for disease?
 1. He compared the rate of cholera between a neighborhood with clean water and one without.
 2. He proved that water from upstream was cleaner than water from the middle of London.
 3. He determined that water that had more sewage also had more bacteria, causing the epidemic.
 4. He pinpointed that dirty water from the middle of the Thames river was a source of cholera.

II. Read the following passage and answer the questions that follow.

According to management professors Daniel Levin, Jorge Walter, and Keith Murnighan, "adults accumulate thousands of relationships over their lifetimes, but, prior to the Internet, they actively maintained no more than 100 or 200 at any given time." For the past few years, these professors have been asking executives to do something that they dread: reactivate their dormant ties. When one executive learned of the assignment, "I groaned. If there are dormant contacts, they are dormant for a reason, right? [X]?"

But the evidence tells a different story. In one study, Levin and colleagues asked more than two hundred executives to reactivate ties that had been dormant for a minimum of three years. Each executive reached out to two former colleagues and sought advice on an ongoing work project. After receiving the advice, they rated its value: [A] solve problems and gain useful referrals? They also rated the advice that they received from two current contacts on the same project. Surprisingly, the executives rated the advice from the dormant ties as contributing more value than the advice from the current ties. Why?

The dormant ties provided more novel information than the current contacts. Over the past few years, while they were out of touch, they had been exposed to new ideas and perspectives. The current contacts were more likely to share the knowledge base and viewpoint that the executives already possessed. One executive commented that "before contacting them I thought that they would not have too much to provide beyond what I had already thought, but I was proved wrong. I was very surprised by the fresh ideas."

Dormant ties offer the access to novel information that weak ties [B]. As Levin and colleagues explain, "reconnecting a dormant relationship is not like starting a relationship from scratch. When people reconnect, they still have *feelings of trust*." An executive divulged that "I feel comfortable ... I didn't need to guess what his intentions were ... there was mutual trust that we built years ago that made our conversation today smoother." Reactivating a dormant tie actually required a shorter conversation, since there was already some common ground. The executives didn't need to invest in building a relationship from the start with their dormant ties, as they would with weak ties.

Levin and colleagues asked another group of more than one hundred executives to identify ten dormant ties and rank them in order of the likely value they would provide. The executives then reactivated all ten dormant ties and rated the value of the conversations. All ten dormant ties provided high value, and there were no differences by rank: the executives got just as much value from their tenth choice as from their first choice. When we need new information, we may [C], but we have a large pool of dormant ties that prove to be helpful. And the older we get,

the more dormant ties we have, and the more valuable they become. Levin and colleagues found that people in their forties and fifties received more value from reactivating dormant ties than people in their thirties, who in turn benefited more than people in their twenties. The executive who groaned [D] it “has been eye-opening for me ... it has shown me how much potential I have in my Rolodex.”

[Adapted from Grant, Adam. *Give and Take: A Revolutionary Approach to Success*. Phoenix, 2014.]

Choose the most appropriate option from the ones given below.

A. Choose the best phrase to fit blank [A].

1. how useful current ties are to
2. do the personnel have them
3. to what extent did it help them
4. do they to some degree contribute to

B. Choose the best phrase to fit blank [B].

1. prove itself beneficial, not any better
2. afford, but without the discomfort
3. could help share at any rate
4. allow them to be exposed

C. Choose the best phrase to fit blank [C].

1. run out of weak ties quickly
2. have sought for a novel approach
3. fail to receive it successfully
4. well be helped by a new contact

D. Choose the best phrase to fit blank [D].

1. about reconnecting admitted that
2. happily said with a tone of voice
3. come to a final conclusion
4. in regard to reasonable ties boasted

X. Write a question in blank [X] that best follows up the idea of the question before.

III. Read the following passage and answer the questions that follow.

All of us at some time or another have continued to do something that no longer has a purpose or benefit because we have already put a lot of time, effort, or money into it. We don't want to stop doing what we are doing because then we will feel that our investment will have been wasted. This is called the sunk cost fallacy, and it affects governments and businesses as well as ordinary people.

If something is a sunk cost, that means that it is gone and we can never get it back. The fallacy is the idea that if we discontinue the activity, then the costs that we have already expended⁽¹⁾ will be wasted. It is sometimes hard to appreciate that stopping a failing project and starting anew can often cost us less in the long run.

We see examples of the sunk cost fallacy in our daily lives. A common and, fortunately, harmless example is time spent waiting in line at the supermarket. When we go to the checkout lines, we make a quick mental calculation about which line will likely be the fastest. It sometimes turns out that the line next to us moves faster, yet we are hesitant to change lines, especially if we have been standing in our current line for a long time.

Another example of a sunk cost is when we purchase something that we end up not using but keep around anyway. That shirt that looked good in the store doesn't look so good when we get home. We will never wear it, but keep it in the dresser "just in case." If we were to throw or give it away, we would have more space and less clutter.

We also tend to use the sunk cost fallacy in regards to costs paid by other people, too. If someone gives us expensive tickets to an art exhibit, we feel obliged⁽²⁾ to go even if we are not interested in that kind of art. We don't want to waste the ticket that someone else bought, even though it cost us nothing.

Businesses often engage in the sunk cost fallacy. In one example, a major-league baseball team signed a player to a very expensive contract. The player did not perform as well as expected, yet the manager kept having him play because the team was committed to paying him a high salary. By putting him in the game, they were denying a chance to other, potentially better, players. They were also hurting their own chances to win.

People have many reasons for falling for the sunk cost fallacy. One reason is that we don't like to admit that we made a mistake with our original decision. We think that if we continue what we are doing we might still be able to salvage⁽³⁾ our earlier investment in time or money. Another common reason is that we often consider the costs we have already put in more than any future costs. If we have already spent 10 hours doing research for a term paper, we resist changing to another topic even if we could write that other paper faster.

The only way to avoid the sunk cost fallacy is to realize that the sunk cost is gone and can

never be recovered. We should not let it influence our future decisions. The sunk cost fallacy can even apply to projects that have potential value if the effort or money put into those projects are preventing us from doing something else that is even more worthwhile. This is known as an opportunity cost — what better thing we could be doing with our time or money if we were not doing our current activity.

Several decades ago, the CEO of a famous company stopped development of many of the company's new products. A lot of effort had been spent on those products, and they might have been successful, but the CEO realized that the company had finite resources, and putting effort into too many good products might prevent the company from making a few great products. His refusal to give in to the sunk cost fallacy made that company more successful.

1. Choose the best meanings for underlined words (1)~(4).

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|---------------|------------|--------------|---------------|---------------|
| (1) expended: | 1. created | 2. covered | 3. calculated | 4. consumed |
| (2) obliged: | 1. pleased | 2. gratified | 3. compelled | 4. grateful |
| (3) salvage: | 1. reverse | 2. reduce | 3. revenge | 4. retrieve |
| (4) finite: | 1. limited | 2. endless | 3. set | 4. restricted |

2. According to the text, what is a sunk cost?

1. It is a cost that has been used up and cannot be regained.
2. It is a kind of cost that has been spent in a wasteful manner.
3. It is something costly that we later come to regret spending.
4. It is a cost that harms us in a way that we did not anticipate.

3. According to the text, why do people fall for the sunk cost fallacy?

1. They hesitate at the thought of the sunk cost and so continue their actions.
2. They know they cannot recover the time or money that they already wasted.
3. They are unconcerned with how much time, effort, or money they used earlier.
4. They do not want to waste the time or money they have previously spent.

4. According to the text, why is it a mistake to consider sunk costs when deciding what to do in the future?

1. Because we may end up wasting more money if we stop an activity once we start it.
2. Because neither continuing nor stopping an activity will change what we have paid out.
3. Because sunk costs can only be recovered by continuing with a project that has already begun.
4. Because the future cost in time or money is less important than the total cost we used.

5. According to the text, what can the sunk cost fallacy teach us about continuing or stopping a project that might be beneficial?

1. Looking at the sunk cost can help us predict what projects are more likely to succeed or fail.
2. We should discount the opportunity cost when deciding whether or not to continue a project.
3. Promising projects can sometimes divert our resources from more valuable undertakings.
4. Even successful projects are not worth continuing if they will not provide a future benefit.

6. Writing Question: We usually think that falling for the sunk cost fallacy is negative. Is it possible that pursuing a sunk cost that no longer appears beneficial can be positive in the end? Give reasons and examples to support your opinion. Fictional examples are acceptable.

