滋賀医科大学
平成28年度
医学科一般入試(前期日程)問題

英　　語

(注　意)

1. 問題冊子は試験開始の合図があるまで開かないこと。
2. 問題冊子は表紙のほか8ページである。
3. 試験中に問題冊子及び解答用紙の印刷不鮮明，ページの落丁・乱丁等に気付いた場合は，手を挙げて監督者に知らせること。
4. 解答用紙のすべてに受験番号及び氏名をはっきり記入すること。
5. 解答はすべて解答用紙の所定の解答欄に明瞭に記入すること。
6. 解答に関係のないことを書いた答案は，無効にすることがある。
7. 本学受験票を机の右上に出しておくこと。
8. 試験時間は90分である。
9. 問題冊子は持ち帰ってもよいが，解答用紙は持ち帰らないこと。

英　　語（3問題）

Ⅰ．次の文章を読んで，下の設問に本文の内容に沿って答えよ。記号以外の解答はすべて日本語ですること。　　（配点　70点）

Few animals are as terrifying to humans as sharks. These sharp-toothed predators haunt the dreams of many a beachgoer and even of those who seldom visit the shore. However, the numbers show that sharks pose very little threat to humans. So why are people so afraid of them?

Statistically, you have only about a 1 in 3,748,067 chance of dying in a shark attack, according to the International Shark Attack File of the University of Florida's Museum of Natural History. You face a greater risk from other beach dangers than you do from sharks. In general, people have a 1 in 1,134 chance of drowning and a 1 in 13,729 chance of dying of sun exposure. In a wider perspective, you are at a much higher risk of dying of heart disease (1 in 5 chance), of cancer (1 in 7 chance), or in a car accident (1 in 84 chance) than you are of being the victim of a shark attack. However, these statistics do not seem to matter to people who fear sharks.

David Ropeik, a specialist in risk perception and risk communication, mentions "two biological truths"(1) about how the brain perceives and responds to risks. According to his explanation, based on recent brain science findings, the first of these truths is that humans are biologically so constructed that their first response to a risk is subconscious and instinctive. The second truth is that, over time, when they "think" of the risk at all, humans tend to respond more with feelings than they do with rational thinking. Instinct and feelings play a vital role, sometimes the primary role, in how we perceive and respond to risks.

In other words, people tend to feel scared of sharks first and then, if and when they later begin to consider the actual risk that sharks pose, their thinking will be strongly affected by fear. People do not start thinking more rationally about sharks the longer they sit on the beach, pondering the great body of water before them. In fact, the longer people think about all the sharks that might be swimming below the surface, the more scared they might feel.

Various fields of science are revealing that human judgment is not as rational as it used to

be thought. Our brain is "lazy," (2) according to Ropeik. "We have a bunch of mental shortcuts that allow us to judge situations quickly before we have all the information," he says. "We make up our mind quickly, because it's easier for the brain to do that. It takes calories to think."

One of the mental shortcuts is known as the "availability heuristic," the brain's tendency to focus on information that is recent and readily recalled and available when making a decision. Let us say you watch "Shark Week" programming and read a few news stories about the recent shark attacks off the coast of North Carolina before going on a vacation. While there, you might walk into the water and feel something rub against your leg. "When the availability heuristic mental shortcut starts, we leap to the conclusion, 'Ah, shark!' without going to the facts," Ropeik says. "We never get to the other possibilities because the nature of the brain is to take partial information, quickly judge whether there may be danger, and then draw quick, protective or cautionary conclusions before we objectively look at the evidence."

It is particularly easy for people to jump to conclusions about sharks because of the specific kind of risk that they pose to humans, says Ropeik. A risk that results in the horrible death of being eaten alive is scarier than the risk of being suddenly hit by a car. The hidden nature of a shark attack also makes it seem more frightening. "It's scary to encounter a risk when you don't know that something is about to happen — like a shark waiting underwater where you can't see it. Uncertainty makes this risk scary," Ropeik says.

Most of us have distorted perceptions (3) of risks. Last year, Christopher Bader and other sociologists conducted a survey in which they asked Americans to reveal how fearful they felt about specific things. The results showed that people who reported watching television regularly, including news and crime shows, were more likely than people who did not watch these programs to think that the rates of certain crimes — such as serial killings and mass shootings — had gone up over the past 20 years. In reality, the rates of all these crimes in the United States have declined in the past two decades.

As they do with crime, people get most of their information about sharks from the media, (4) which can be a problem, says Bader. He adds that, when one shark attack occurs, media outlets tend to seize the opportunity to report on other examples of such attacks. This heightened coverage can give people the impression that the rate of shark attacks is on the rise, even though it might not be. Also, Bader's research has shown that people who think negative incidents are on the rise are more likely to be afraid that they will be victims of such incidents.

It is not easy to resist our mental habits and social forces, but it may help to keep in mind that often there is distance between facts and our fears.

（出典　http://www.livescience.com/51579-fear-of-sharks-psychology.html より改変引用。）

設問 1　本文に言及される次の 6 つの死因について，リスクの高いものから低いものへ順番に記号で記せ。

A．Shark attack

B．Drowning

C．Sun exposure

D．Heart disease

E．Cancer

F．Car accident

設問 2　本文によるとサメの何がこわいのか，説明せよ。

設問 3　下線部 (1) の“two biological truths”とは，具体的にどのようなことを示すか，2 つの違いに留意しながら説明せよ。

設問 4　海水浴客が海岸で海を前にした時に，サメについてどのような感情や思考の過程をたどるか，説明せよ。

設問 5　下線部 (2) の“lazy”が意味するところを，本文中から具体例を引きながら説明せよ。

設問 6　下線部 (3) の“distorted perceptions”をこのパラグラフの文脈に沿って説明せよ。

設問 7　下線部 (4) の“the media”の特性について説明し，それが人々のリスクに対する認識に与える影響を述べよ。

設問 8　どのような人々が，重大な犯罪の発生件数は過去 20 年間で増加していると考えがちであるかを，述べよ。

Ⅱ．次の文章を読んで，下の設問に本文の内容に沿って答えよ。解答はすべて日本語ですること。右肩に*印のある語には下に注がある。（配点　90 点）

Richard III was King of England from 1483 to 1485. In the Battle of Bosworth Field in 1485, at the age of 32, he was defeated, which marked the end of the Middle Ages of England. He was the last king to die in battle on English soil. William Shakespeare wrote a history play named after the king, *Richard III*, where he was described as a sinister character who had his two nephew-princes murdered so that he could become king. Physically he had a severely bent spine*, which made him stand out and (1)might have negatively affected his mind.

In August 2012, the University of Leicester, together with Leicester City Council, began an archeological* project on a city parking lot which used to be occupied by Greyfriars Church. (2)Incredibly, the dig uncovered not only church buildings and some graves, but also a skeleton that showed signs of having been in a battle and with the king's distinctively bent spine. In February 2013, the university announced to the world's press that these were, indeed, the remains of King Richard III.

Mathew Morris, archeologist, described how they made the first discovery in one end of a 30m long ditch that they had dug, finding a leg sticking out from the side. "You expect to find bits of bone in a churchyard because things get mixed up, so you then look for something connected to the leg, and once you have that you know you have a burial," he said. "We weren't entirely sure we were in the church at that point. We could have been in the graveyard outside the church, so we actually waited for a few days to be sure of where it was before we looked at it."

Work continued though, when the skeleton's location within the building was confirmed. Morris said:

> It was a very simple grave. We don't think there was a coffin. He was just wrapped in cloth, but he was laid carefully in the grave. It was done with respect. We cleaned all the other parts first but — because it is one of the most complex parts — (3)we left the spine to the last moment. So it was right after we had the rest of him uncovered, and [the spine] was really obviously curved, that we looked at each other and said, (4)"Wow, this is a really good candidate." When we lifted the spine, we found an arrowhead!

Dr. Jo Appleby, an archeologist specializing in bones, said:

We were still not convinced even as the dig was being carried out. We thought it was pretty unlikely to be Richard III. So it was quite a shock when it (5) began to show the (6) characteristics it did. We found the damage to the head and that set a few alarm bells (7) ringing — but of course we live in a world where you just don't find dead kings! I told (8) myself it was just coincidence, it was some other guy, lots of medieval people were involved in battles.

But when we got to the spine and we saw that curve in it, it was incredible. If you had a list of what you wanted to find, this was it. The bones also provide powerful evidence of a violent death. We haven't looked at all of the skull yet, but we have two wounds so far. Basically, a slice has been taken off the back of the head and there is also a wound to the top of the head, very small on the outside but causing a lot of damage inside, caused by something more pointy.

Morris said the team's achievement was not clear at first. "We didn't get off the site until seven in the evening with the sun going down, and we were under such pressure to do it properly that we didn't think about it much," he said. "But driving home that evening it began to (9) sink in what we might have done. As an archeologist, people always ask me what the best thing I have ever found is. I used to have to (10) think about that, but not any more."

Clues at the dig for Richard III, archeologists suggest, point to the skeleton's discovery being one of the most remarkable finds ever made in England. Genetic and genealogical* research including a statistical analysis of all the evidence actually suggests that they are indeed the remains of Richard III, who lived five centuries ago.

The University of Leicester's Department of Genetics is famous as the birthplace of DNA fingerprinting, discovered here by Professor Sir Alec Jeffreys in 1984 and widely used by governments and law enforcement since then. However, (11) a different approach, one involving the king's remote descendants, was required when the Department of Genetics set out to investigate whether the skeleton from the Greyfriars site was the remains of Richard III.

The evidence that really confirmed the finding was genetic identification. Mitochondrial DNA is passed down through the female (12) line and the Y chromosome through the male (12) line. This is where the genealogical detective work came in: only individuals related to Richard III through

an all-female line (12) or an all-male line (12) could be used for comparison for DNA analysis.

DNA analysis on the male line has not yet born fruit, but the female line was traced. The descendants were scattered in England, Scotland, South Africa, Australia and Canada. It was confirmed that Richard III's mitochondrial-DNA was matched to two living relatives of his eldest sister Anne of York. This discovery of Richard III's remains has been an example of amazing cooperation in many fields of study — history, literature, geography, archeology, genetics, and genealogy.

参考文献・出典:

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https://www.le.ac.uk/richardiii/

http://www.theguardian.com/uk-news/2015/mar/25/richard-iii-battle-of-bosworth-descendants-meet-for-kings-reburial

https://www.newscientist.com/article/dn26649-genetic-analysis-confirms-richard-iii-skeleton-find/

http://www.nature.com/ncomms/2014/141202/ncomms6631/full/ncomms6631.html より編集・改変引用。

注：

spine* ＝背骨

archeological* ＜archeology＝考古学

genealogical* ＜genealogy＝家系，血統

設問 1 Explain underlined part (1).

設問 2 In underlined part (2), what aspect of the discovery was particularly incredible?

設問 3 In underlined part (3), why did they delay lifting the spine?

設問 4 In underlined part (4), what did Morris mean by "candidate"?

設問 5 Why was Dr. Appleby initially skeptical about the skeleton being Richard III's?

設問 6 In underlined part (5), what does "it" mean?

設問 7 What specific physical characteristics is Appleby implying in underlined part (6)?

設問 8　In underlined part (7), what does Appleby imply by "alarm bells"?

設問 9　In underlined part (8), what does "it" mean?

設問10　In underlined part (9), explain the meaning of "sink in."

設問11　In underlined part (10), why does he not need to "think about that" any more?

設問12　In underlined part (11), what different approach was required?

設問13　Underlined part (12) : the word "line" appears four times.　What does it mean?

設問14　Explain the role of genealogy in confirming the Richard III find.

Ⅲ．大問Ⅰの英文で，人が感じる恐怖は実際の危険性の度合いと異なりがちであることが述べられている。このような現象を自身あるいは見聞きした他の人々の経験を例にとって分析し，恐怖にどのように対処すべきか，130 語程度の英文で述べよ。　（配点　40 点）