

平成 27 年度 入学試験問題

# 外 国 語

英 語

2 月 25 日(水) 10:00—11:45

(全学部共通)

## 注 意 事 項

1. 試験開始の合図があるまで、この冊子と答案紙を開いてはいけない。
2. 問題冊子のページ数は、12 ページである。
3. 問題冊子とは別に答案紙が 4 枚ある。
4. 落丁、乱丁、印刷不鮮明の箇所などがあつたら、ただちに申し出よ。
5. 解答にかかる前に答案紙左端の折り目をていねいに切り離し、答案紙のそれぞれの所定の 2 箇所に受験番号を記入せよ。
6. 解答は答案紙の所定の欄に記入せよ。所定の欄以外に書いた答案は無効である。
7. 答案紙の右寄りに引かれた縦線より右の部分には、受験番号のほかは記入してはいけない。
8. 問題冊子の余白は草稿用として使ってもよい。
9. 試験終了後、退室の許可があるまでは、退室してはいけない。
10. 答案紙は持ち帰ってはいけない。問題冊子は持ち帰ってもよい。

I 次の英文を読み、下記の設問に答えなさい。なお、smartphone, mobile phone, phone の区別はしないこととする。

The mere presence of a smartphone is enough to drag down the quality of a face-to-face conversation, according to a new study.

In an initial observational study, researchers found that many coffee shop visitors sitting in pairs or in small groups checked their phones every 3 to 5 minutes, and usually held or placed their phones on the table in front of them. Intrigued, lead researcher Shalini Misra, a psychology professor at Virginia Tech, designed a follow-up experiment to measure how the presence of phones influenced the quality of conversation.

Misra found that in conversations where someone pulled out a smartphone while talking, the participants rated their conversation as less fulfilling and felt less connected to their partner than in conversations where no one pulled out a smartphone. According to Misra and her research team, “Mobile phones hold symbolic meaning in advanced technological societies.” Their paper published on July 1 in the journal *Environment and Behavior* concluded, “In the presence of smartphones, people have the constant urge to seek out information, check for communication and direct their thoughts to other people and worlds.”

It's old news in the 21st century that tech-related distractions steal attention from real people. Previous studies have shown that “cyber-based overload” makes people feel compelled to multitask and constantly check their phones, emails and social networks. People are also becoming more and more obsessed with cultivating horizontal relationships: vast networks of shallow relationships with people who are not present, with a smartphone acting as a way to connect, according to Misra. The compulsion to check phones and the need to stay tied into the horizontal network can make people withdraw from the present, and it can create resentment among family and friends, Misra and her co-authors wrote.

To test how much influence smartphones have on social interactions, Misra and the research team divided 200 coffee shop visitors into pairs. They were ( a ) either a casual topic to discuss, such as their thoughts and feelings about plastic Christmas trees, or a more serious topic, such as the most meaningful events that happened in the past year. A researcher then observed the participants during a 10-minute conversation about the given topic. The observers did not record the content of the conversation, but sat at a distance and recorded only if the participants pulled out a phone or set one on the table. The researchers report that someone pulled out a phone in 29 of the 100 groups. After the conversation, the participants were asked to fill out a survey describing how close their relationship was, how close they felt to the other person during the conversation and how well they thought their partner ( b ) them during the conversation.

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In the conversations where someone pulled out a smartphone, the participants reported feeling less fulfilled and feeling less empathy for the other person. The result held true even after the researchers adjusted for the age, gender, ethnicity and mood of the participants. The effect was found whether the coffee shop visitors discussed current events or plastic holiday trees. In other words, the topic of conversation did not influence whether or not the participants felt that they had a fulfilling conversation. Further, Misra and the team found that phones had more effect on close friends than casual friends. In pairs of people who knew each other very well, the presence of a phone had an even bigger negative effect on the perceived quality of the conversation.

Misra wrote that part of the reason the presence of a phone can drag down a conversation is that when people are distracted by their phones, it's easier to miss subtle cues, such as changes in facial expression and changes in tone. When people are staring down at their phones, there is also much less eye contact. This can result in the participants feeling less connection to each other.

Next, Misra and the team hope to examine how the number of times people

pick up their phone or look at it during a conversation ( c ) the quality of the exchange.

【出典：Kelly Dickerson, “Are smartphones killing our conversation quality?” *Live Science*, July 18, 2014 より。出題の都合上、原文の一部に変更を加えている。】

### 設 問

- 1 下線部(1)を日本語に訳しなさい。
- 2 下線部(2)が示す内容を 30 字以上 50 字以内の日本語で説明しなさい。
- 3 空欄 

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 に入るべきもっとも適切な文を以下の A から E より選び、記号で答えなさい。
  - A. The research suggested that using a smartphone is not only convenient but also makes our communication more extensive.
  - B. The research was carried out by Shalini Misra at Virginia Tech in the United States.
  - C. The results indicated that none of the following factors such as age, gender, ethnicity, topic, mood, and close relationships of the partners influenced the rating of the conversation where a smartphone was pulled out.
  - D. The scientists wanted to find out whether old people tend to feel less connected with their partner than young people when a smartphone was pulled out during the conversation.
  - E. The study found that the presence of a smartphone negatively influences how people experience conversation.
- 4 空欄 ( a ) ~ ( c ) に入るもっとも適切な単語をそれぞれ下から選び、文脈に合うようにもっとも適切な形にして書きなさい。ただし、いずれの単語も一回しか使用できないものとする。各欄の答えは一語で答えること。

affect    assign    converse    drag    extract    understand

II 次の英文を読み、下記の設問に答えなさい。

(\*の付いた単語はNOTESを参照すること)

How can animals, from ants to people, form social groups with individuals working successfully together for a common good? So Charles Darwin asked in 1859, perceiving the existence of cooperative behaviour as a threat to his theory of evolution. Such behaviour remains one of the biggest unanswered questions in science — one that our study, published in *Ecology Letters*, set out to answer with the help of a highly social bird, the sociable weaver\*.

It's easy to see why animals should behave selfishly: if you are to pass on your genes to the next generation you should aim to look after yourself, protect your resources, find a mate and reproduce — why would you care about others? As a result of such selfish interests conflict is rife in nature. But what is less well known is that cooperation is also widespread and can be observed at almost any level of biological organisation.

(ア)

There has been much progress since Darwin, and we now understand a great deal more about how animals may benefit from working together. Although several important theories have been developed and tested over the past decades, kin selection theory has perhaps caused the greatest advance in our understanding of cooperation in animals. Introduced by Bill Hamilton in the 1960s, it states that if an individual cooperates with its relatives, this individual may indirectly pass on its genes to the next generation. This is now generally accepted as the main explanation behind cooperation at the family level.

(イ)

Cooperation, however, can be observed at a much larger scale, with large social groups working successfully together to construct and maintain a common good outside the context of breeding. How kin selection might promote such large social groups is much less straightforward, due to the usually low average

levels of relatedness and the social dilemmas faced by individuals within those groups. A well-known and widespread social dilemma is a phenomenon called the tragedy of the commons.

(ウ)

Under the tragedy of the commons, social benefits are highest in groups that cooperate, but selfish individuals do better within cooperative groups. If selfishness prevailed, public goods would become over-exploited and society would collapse. Examples from human society include over-exploitation of fish stocks, our failure to efficiently deal with climate change, and the collapse of the society of the original inhabitants of Easter Island. How do animals avoid such collapse and manage to keep freeloaders\* at bay?

(エ)

To find out, our research team at the University of Sheffield, led by Professor Ben Hatchwell, turned to sociable weavers as a model system. This small bird is extremely social and builds the largest nest of any bird—communally housing hundreds of individuals, weighing more than a tonne, and lasting for decades.

(オ)

Their massive nest consists of individual nest chambers embedded within a communal thatch\*. The latter requires separate investment from the colony members and does not emerge from investment in the individual nest chambers. By studying the thatch we can investigate how the birds work together to maintain their public good.

(カ)

After detailed observations of their behaviour and tests to reveal the genetic relationships among the colony members, we found the birds contributing to thatch building did so above their own nest chamber. This indicates self-directed thatch building.

(キ)

However, we also found that these thatchers' neighbours were often relatives, and that as they also benefited this suggests the thatch-building might be directed towards kin. In trying to confirm that idea, we found that <sup>(4)</sup>relatedness to near neighbours predicted thatch building: the more related an individual is to its neighbours, the more likely it is to contribute to the communal good.

(ク)

Finally, we found related individuals tend to share the use of nest chambers and thus share the benefits of their communal investment among relatives. So these sociable birds benefit from having good neighbours, and from maintaining healthy family relationships—a lesson to us all, no doubt. Despite low relatedness at colony level, social organisation of relatives within the colony leads to communal investment being enjoyed by relatives, as well as contributing to the overall thatch important for the nest as a whole.

(ケ)

Other solutions to the problem of cooperation exist, such as the enforcement of laws and agreements. Perhaps it is these we must turn to—the enforcement of sustainable fishing practices, for example—to ensure the tragedy of the commons is not replicated on a global scale.

(コ)

【出典：Rene van Dijk, “Biggest bird nests in the world are kept together by family ties,” *The Conversation*, July 9, 2014 より。出題の都合上、原文の一部に変更を加えている。】

## NOTES

weaver : a songbird of tropical Africa and Asia, related to the sparrows, which builds elaborately woven nests

freeloader : a person who takes advantage of others' generosity without giving anything in return

thatch : a roof covering of straw, palm leaves, or a similar material

## 設問

- 1 下線部(1)の内容を 30 字以上 50 字以内の日本語で説明しなさい。
- 2 下線部(2)を日本語に訳しなさい。
- 3 下線部(3)を日本語に訳しなさい。
- 4 下線部(4)の内容を 20 字以上 40 字以内の日本語で説明しなさい。
- 5 以下の英文は、文脈に即して考えると、本文のどの位置に置くのが最適か、(ア)~(コ)の記号で答えなさい。

This is the first study to show that kin selection may encourage the animal effort required to communally build and maintain a structure, and as such it may be relevant to the many other species that build some sort of structure. However, for that most cooperative of species, humans, the mechanism our study revealed is unlikely to apply directly.



III Read the following conversation between two friends. Then answer the questions below in English.

Mel : Where do you think you'll live in the future?

Kat : Wherever I can find work.

Mel : So it doesn't matter to you where you live?

Kat : Of course I care about it, but it's not my first priority. First I've got to have a job; otherwise, I can't live at all. Do you think the place you live is more important than the place you work?

Mel : Not exactly. I can see they're both important. But I do think a lot about where I'll live in the future.

Kat : Where then?

Mel : Guess.

Kat : Probably a nice big house in the suburbs with a garden, two kids, a dog and a cat?

Mel : Not even close.

Kat : OK, not a cat. A fish.

Mel : No, it's not just about the pets. It's almost everything you said. I really want to live in the countryside, near the ocean or at least by a river.

Kat : Really? I'm surprised to hear that. I really saw you as a comfortable middle-class suburbanite.

Mel : Well, to be honest, I kind of thought that myself. But a few months back I read about research into what environments make people happiest.

Kat : There's so much great research about happiness these days. What did you find out?

Mel : According to the author of the article I read, there are a whole bunch of studies showing humans tend to be happier when they live in a place either with plenty of greenery or close to water.

Kat : Interesting. Wow, they do really good salads here.

Mel : It turns out that living near water makes people happier.

Kat : How did they come up with that?

Mel : Well, various ways, like asking people living in different types of settings how happy they were. One was a longitudinal study, so they could see what happened to certain people's happiness when they changed their environment.

Kat : Oh, OK. But, are you sure people really tell the truth in surveys, especially on a subject like happiness?

Mel : Do people really even know what happiness means? Still, that's not the only research. They've done studies with people looking at views, in real life or in pictures, to see how it changes their body chemistry, like stress hormones and so on. In fact, they found that views that contained both green landscape and water had the best effect.

Kat : So you're going to live out in the country near the beach? That'd be nice. Could you pass the salt? But what if you can't find work out there?

Mel : I guess I'll commute. Actually, I still want to work in a city.

Kat : You see, I'd rather live in the city near where I work. If you travel for an hour each way, that's two hours or more each day driving in traffic or riding a train. Are you really going to be happy spending so much time commuting? I'd rather have more free time. I know that's what makes me less stressed and happier with my life.

Mel : Yes, I guess it's a matter of time versus space. I have this ideal image of how life could be, but reality's always more complicated, right?

Kat : Maybe you could live in the city but have a nice garden, maybe even a little pond with the fish I mentioned before.

Mel : You seem very determined that I have fish. Actually the researchers said the water is more important than the fish for human well-being. Even looking at an empty fish tank made people feel better.

Kat : So why do people like water and greenery so much anyway?

Mel : Based on their research, they think it might be because that's where humans come from and feel comfortable. We used to live in natural environments. Way, way back we were probably fish, or sea creatures ourselves. So, it kind of feels like going home. But actually, they admit they're not really sure yet.

## QUESTIONS

- 1 Fill the gaps in the following passage using words from the list below to make the most suitable summary of the conversation. Do not use any word more than once.

The conversation begins with the friends talking about which is most (1) \_\_\_\_\_ to them in considering their future, the (2) \_\_\_\_\_ in which they live or (3) \_\_\_\_\_ to work. This leads to (4) \_\_\_\_\_ of research that has been undertaken on the (5) \_\_\_\_\_ of environment on people's sense of (6) \_\_\_\_\_.

discussion	important
efficiency	proximity
factors	similar
happy	surroundings
impact	well-being

- 2 Based on the conversation, which one of the following is most likely true?
- (A) Mel never thought of living in a suburb.
  - (B) Kat thinks happiness research is not worthwhile.
  - (C) Mel hopes to find employment in a rural area.
  - (D) Kat is more concerned about employment than her place of residence.
  - (E) The most important thing for Kat is a nice big house in the suburbs.

- 3 We can infer that the conversation between Kat and Mel took place in a restaurant based on two sentences in the passage. Identify the two sentences and write them down.
- 4 According to the research measuring changes in body chemistry referred to in the conversation, what two elements when combined have the most beneficial effect?
- 5 Do you agree that it is important to live in a place that is close to nature? State your opinion beginning with either “I agree because…” or “I disagree because…”. Justify it using two reasons in your own words. Write about 40 to 50 words in English including the three required words. (Indicate the number of words you have written at the end of the composition. Do not count punctuation such as commas or periods as words.)

IV 次の文章を読み、下線部(1)~(3)を英語に訳しなさい。

この30年の間に、コミュニケーション研究の新しい潮流が生まれてきた。人は、自らの身体の動きや他者との相互作用を通して、どのようにしてことばの<sup>(1)</sup>意味を身につけていくのか。お互いに気持ちを通じ合う共感の感情は、意識下でどのように生まれ、育まれるのか。胎児のときから始まる母と子の相互作用は、教え合ったり騙し合ったりする高度な社会性のはたらきへと、どのように関係していくのか。社会規範や制度、文化が安定的に維持されるには、人々の心や行動の調整がどう図られるのか。

これらはすべて、コミュニケーションについての基本的な問いであり、医療、防<sup>(2)</sup>災、教育、その他多くの実践に結びつく、きわめて重要な問いでもある。

1980年代以降、こうした問題への接近が急速に進んだ。その背景には、身体、言語、感情、記憶、社会性などの心の機能を探求する認知科学、その発達過程を解明する発達科学、社会の仕組みや文化との関係を探る社会科学、さらには進化の科学、脳の科学など、人間と社会の基本的な機能を実証的・合理的に明らかにする科学の発展がある。

コミュニケーションとは、人々の共存と情報の共有のための、人間や社会の根本<sup>(3)</sup>的な機能にほかならない。新しく起こったコミュニケーションの科学の潮流は、このことを直視する。80年代半ば以降のグローバル化やネット化によって我々自身の深部に入り込んできたコミュニケーションの意味を、「人間とは何か」という究極の問いに結びつけようとしている。

【出典：安西祐一郎「新たな人間学へ」『図書』(2014年6月号)。出題の都合上、原文の一部に変更を加えている。】