

筑波大学

平成30年度 個別学力試験問題

外国語 (英語)

(120分)

- 人文・文化学群 (人文学類, 比較文化学類, 日本語・日本文化学類)
社会・国際学群 (社会学類, 国際総合学類)
人間学群 (教育学類, 心理学類, 障害科学類)
生命環境学群 (生物学類, 生物資源学類, 地球学類)
理工学群 (数学類, 物理学類, 化学類, 応用理工学類,
工学システム学類, 社会工学類)
情報学群 (情報科学類, 情報メディア創成学類,
知識情報・図書館学類)
医学群 (医学類, 看護学類, 医療科学類)

注 意

1. 問題冊子は1ページから12ページまでである。
2. 解答は解答用紙の定められた欄に記入すること。

I 次の英文を読んで、下の問いに答えなさい。

(星印(*)のついた語には本文の後に注があります。)

A recent survey concluded that the average British person will say *sorry* more than 1.9 million times in his lifetime. This may strike some as a conservative estimate. From this, one might think that the British are especially polite. This might be true if *sorry* were always, or even usually, a straightforward apology. It isn't. The reason they stay on the sorry-go-round is ⁽¹⁾ that the word, in their English, is so very versatile. A.A. Gill, writing for the benefit of visitors to the London Olympics, boasted that Londoners were just permanently irritated. He said, "I think we wake up taking offense. All those English teacup manners, the exaggerated please and thank yous, are really the ⁽²⁾ muzzle we put on our short tempers. There are, for instance, a dozen inflections* of the word sorry. Only one of them means 'I'm sorry.'"

Here are just a few of the many moods and meanings these two syllables can convey:

"Sorry!" (I stepped on your foot.)

"Sorry." (You stepped on my foot.)

"Sorry?" (I didn't catch what you just said.)

"SOrry." (You are an idiot.)

"SORRY." (Get out of my way.)

"SorRY." (The nerve of some people!)

"I'm sorry but..." (Actually I'm not at all.)

"Sorry..." (I can't help you.)

It's all in the tone, of course, and this is where *sorry* becomes permanently lost in translation. An American friend will never forget (ア) she finally figured out that *sorry* can be a tool of passive aggression in Britain's hierarchical social system — a form of dismissal. (ア) she was a college kid in England

and people gave her an apology that was not sincere, but meant to put her in her⁽³⁾ place, she would respond earnestly, “Oh, no, it’s OK! Don’t worry!” Why wouldn’t she? There are times when luck favors the ignorant.

The British have a reputation for being passive-aggressive because they seem not to be saying what they mean — at least, not with words. In British culture, a word like *sorry* takes on shades of meaning that someone from outside will not be able to understand (ｲ) any degree of sophistication*, especially if he is from a culture that is more comfortable (ｲ) confrontation, or one that accepts a wider range of small talk among strangers. The British use *sorry* to protest, to ask you to repeat yourself, to make you feel calm, and to smooth over social awkwardness as much as — if not more than — they use it to apologize. But most of the time, their object is politeness of a particularly British kind, to wit: politeness as refusal.

British courtesy often takes the form of what sociolinguists Penelope Brown and Stephen C. Levinson have called “negative politeness”⁽⁴⁾ — which depends on keeping a respectful distance from others and not imposing on them. Its opposite, positive politeness, is inclusive and assumes others’ desire for our approval.

Only the Japanese — masters of negative politeness — have anything even approaching the British *sorry* reflex. No wonder visiting Americans are so often caught off guard, and so often feel they’ve been the objects of passive aggression or dismissal instead of politeness. Their misunderstanding of what constitutes politeness in Britain is not surprising, since Americans epitomize* positive politeness.

(ｱ) Americans say *sorry*, they mostly mean it. But, at least to British ears, they don’t necessarily mean anything else they say. Americans repeat seemingly empty phrases like “Have a nice day!” They also give and receive compliments easily, even among strangers. The British find this behavior highly suspect. Hence, the American reputation for insincerity.

The English novelist Patricia Finney has said that she loves Americans because “it doesn’t matter whether people actually respect me or not, so long as they treat me (1) courtesy and respect... I really don’t mind if nice American check-out guys tell me to have a nice day and are really thinking, ‘hope you have a terrible day,’ so long as I don’t know about it. I think sincerity is overrated in any case.” Americans don’t. Americans prize sincerity above most qualities. An American friend of Finney’s accordingly defended the practice, saying Americans “... do respect people. It’s not faked.”

It could be that Americans have stopped hearing themselves. Just like the British with their *sorry*, they have certainly stopped expecting a response. Imagine the shock of a salesman who said, “Have a nice day!” to the grandfather of a friend, who answered, “Thank you, but I have other plans.”

Americans are sociable and approval-seeking. They look for common ground with others and genuinely want to connect. This often takes the form of compliments — especially to complete strangers. This is because American society’s fluidity can lead to insecurity⁽⁵⁾. Your place in the hierarchy is based not on who you *are*, but what you *do* (and how much you *make*). Therefore, Americans seek reassurance that they are doing all right. But the marvelous thing is that they also seek to give reassurance. That may be the quality that Finney was responding to.

In British culture, you’re assumed to be secure in your place, to know where you stand. But in real life, who does? Practically no one. (6) When there’s nothing to say, we can avoid social awkwardness and either deflect* (UK) or connect (USA)—all in the name of politeness. *Sorry* simultaneously avoids confrontation and, when used sincerely, allows people to show how lovely they are, *really*, despite their minor transgressions*. American compliments allow for a little connection, and strengthen your belonging on a level that’s comfortable — at least if you’re American.

(注)

inflection: the way the sound of your voice goes up and down when you are speaking

sophistication: the state of being very well designed and very advanced

epitomize: to be a very typical example of something

deflect: to do something to stop people paying attention to you, criticizing you, etc.

transgression: something that is against the rules of social behavior or against a moral principle

(注意) 解答する際、アルファベットの小文字は2文字で1字分、大文字は1文字で1字分とします。

1. 下線部(1)が示す現象が生じているのはなぜか、40字程度の日本語で説明しなさい。

2. 以下の選択肢の中で、下線部(2)の言い換えとして最も適切なものはどれか、記号で答えなさい。

All those English teacup manners, the exaggerated please and thank yous, are really what...

- (A) make us offensive
- (B) prevent us from showing anger
- (C) we are sorry about
- (D) we really want to show

3. 以下の選択肢の中で、下線部(3)の意味に最も近いのはどれか、記号で答えなさい。

- (A) apologize to her for taking her place
- (B) remind her of her position
- (C) return her to where she was
- (D) take the place of her

4. 下線部(4)が示す現象の具体例として最も不適切なものを以下の選択肢から1つ選び、記号で答えなさい。

相手に頼みごとをするときに、

- (A) 直接的な表現を避ける。
- (B) はじめに謝罪する。
- (C) ためらい表現を入れる。
- (D) 友達口調で話す。

5. 下線部(5)のような理由を挙げる背景とはどのようなものか、70字程度の日本語で説明しなさい。

6. 空所(6)に入る最も適切な英文を以下の選択肢から1つ選び、記号で答えなさい。

Sorry...

- (A) and American compliments are contrary to each other.
- (B) and American compliments serve similar social purposes.
- (C) is very different from American compliments for social purposes.
- (D) serves as a politeness device, but American compliments do not.

7. 空所(ア)と(イ)のそれぞれに共通して入る最も適切な語を以下の選択肢から1つ選び、記号で答えなさい。ただし、本文では文頭にくる場合も、以下の選択肢では小文字にしてある。

[(ア)用の選択肢]

(A) how (B) since (C) when (D) where

[(イ)用の選択肢]

(A) at (B) in (C) on (D) with

8. 次のそれぞれの記述について、本文の内容に合っているものにはTを、そうでないものにはFを記入しなさい。

(A) Americans often give and receive compliments because their behavior is based on negative politeness.

(B) Americans often say seemingly empty phrases because they usually want a relationship with others.

(C) The British do not use *sorry* to mean it, because they have a negative nature.

(D) The British tend to conceal what they really feel.

II 次の英文を読んで、下の問いに答えなさい。

(星印(*)のついた語には本文の後に注があります。)

In 2050, the human population could reach 10 billion, but even now, some 800 million people go hungry. Feeding ourselves without spoiling the planet is one of the biggest challenges we face. We are running out of land, water and time. To make matters worse, as the world warms, agriculture will get harder. Feeding the 10 billion will require some creative solutions — and unpleasant compromises. How far are we prepared to go to kick-start green revolution 2.0?

(1)
It's not that the original green revolution has nothing left to give. It relied on mechanized farming, modern fertilizers and better seeds to increase productivity. New technology can make existing methods more effective, while also extending the benefits to parts of the world that didn't gain so much from the original green revolution. That's Africa above all.

“By 2050, the world will need to increase agricultural production by at least 70 percent. Nowhere else is the potential to achieve this increase as great as it is in Africa,” says Agnes Kalibata, president of a non-profit organization in Africa. Around half of the world's unused agricultural land is in that continent. What's more, yields from cultivated land there are much lower than in Europe or North America. There is potential to triple the worth of Africa's agricultural output by 2030.

Traditional green-revolution approaches will play a big part, especially in sub-Saharan Africa, where two-thirds of the power used to prepare land for farming is still provided by human muscle. But digital technology could provide an additional increase. A smartphone application helps dairy farmers keep milk records. Farmers with smartphones can also benefit from satellite data providing information such as which crops need more water or fertilizers.

Precision agriculture — applying the optimal* amount of inputs such as water, fertilizer, pesticides* and labor, at the right location and time — can help

increase yields in the West, too. "The long-term goal is to increase the level of detail in crop management to the point of single-plant management. Production optimization can offer a great deal of help in feeding the world," says Alex Thomasson at Texas A&M University. It also allows us to farm in ways and places not considered possible before.

In some cities, vertical farms are taking (ア) rooftops and abandoned buildings. They can be highly efficient, with yields up to 130 times those on an equivalent area of farmable land. As well as using 95 percent less water than conventional cultivation, it benefits from the fact that night-time temperatures tend to be higher in urban areas than in the countryside, lowering heating costs.

But further increases in productivity and extending the range of agriculture are not going to feed the 10 billion (イ) their own. That's going to require a fundamental rethink of what we eat. There are some 50,000 edible plants, yet just three — wheat, rice and corn — account (ウ) over 60 percent of the world's calorie intake. Native plants better suited to local conditions could offer better solutions.

People are also starting to recognize the nutritional potential of algae*, including seaweed. Some types, when dried, contain 70 percent protein; others are packed with essential fatty acids. Seaweeds are abundant in micronutrients, too. There's plenty (エ) scope for expansion. A big advantage of algae is that its cultivation doesn't require agricultural land. It can be done offshore or in places where the groundwater is salty, even in the Sahara.

Currently, a third of Earth's farmable land is used to grow feed for farm animals. If everyone ate a US-style diet, by 2050 we would need around 4.5 times as much meat as we produce now. There simply isn't enough land to do that. One way to fill that gap is to eat more of what 2 billion people across the globe already do: insects. It takes 25 kilograms of feed to produce 1 kg of beef, but just 2 kg to get 1 kg of crickets. Insects contain all the essential amino acids we need, and some are better sources of protein than beef or chicken.

An alternative is more plant-based meat substitutes. Mock meats are made by breaking and reassembling plant-derived protein molecules in extruders — the same machines used to produce breakfast cereals and spaghetti. Already there are dozens of them on the market, from sausages made from beans to the Impossible Burger, which takes imitation meat to a new level using a plant-derived version of heme* to create a veggie burger that bleeds.⁽³⁾

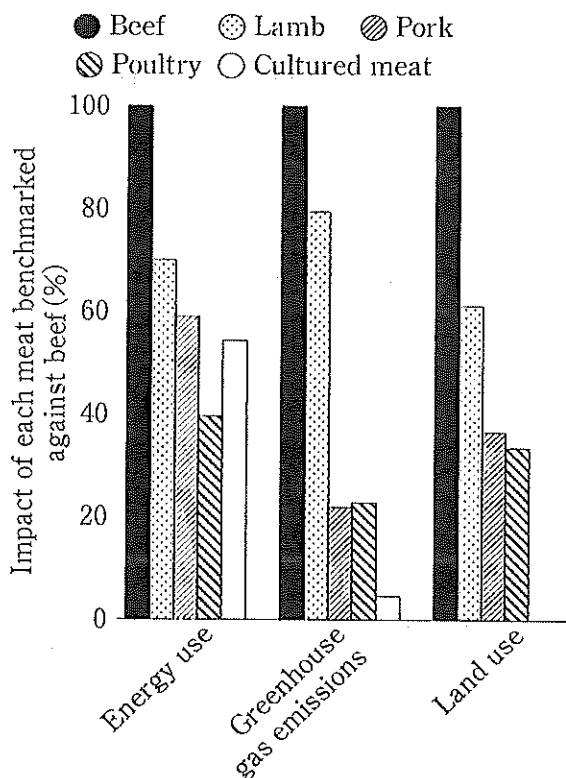


Figure 1. Sin of the flesh

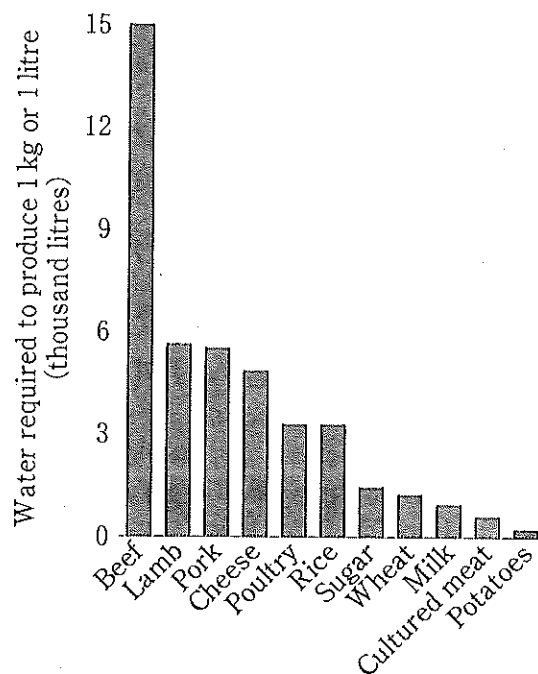


Figure 2. Thirsty food

Then there's "clean" meat grown from muscle tissue in labs, which also has big environmental advantages over conventional meat (see Figure 1 and Figure 2). Four years since we saw the first lab-grown burger, the technology is gathering pace. How clean meat will go down with consumers remains to be seen. "These cells are dead, as in any meat. Stem cells are everywhere: in your muscles, in your regular food," says Anon van Essen at Maastricht University, who worked on the first clean burger.

Even before we are eating lab-grown meat, we could be consuming cow-free milk and chicken-free eggs. Such products are possible thanks to biotechnology that genetically modifies yeast to “brew” animal proteins. Again, there are environmental advantages over conventional production methods. Yeast-made milk uses 98 percent less water and requires up to 91 percent less land than a cow’s milk. Synthetic products can be healthier, too: it’s possible to make milk without lactose, for example. Companies developing them liken their process to making beer.

There’s no doubt that feeding 10 billion people will require far-reaching changes both in what we eat and how we think about food. “With a problem as complex as food security, the idea that you should dismiss anything that can contribute to solving it is inappropriate,” says Ottoline Leyser at the University of Cambridge. “We have an extensive toolbox to address food security and we need to make sure we pick the right tools for the right job, at the right time.”

(注)

optimal : 最適な

pesticide : 農薬

algae : 藻類

heme : ヘモグロビンの色素成分

1. 下線部(1)の最終的な目標は何か, 40 字程度の日本語で答えなさい。
2. 下線部(2)の可能性の背景にある理由を 2 つ挙げ, 70 字程度の日本語で答えなさい。
3. 空所(ア)~(エ)に入る最も適切な前置詞を次の中から 1 つ選び, 記号で答えなさい。

(A) for (B) of (C) on (D) over (E) to

4. 下線部(3)に関して, どのような点で a new level と言えるのか, 40 字程度の日本語で答えなさい。
5. Figure 1 と Figure 2 にある cultured meat の cultured と最も近い意味で使われている語を本文から 1 語抜き出さなさい。
6. 下線部(4)の内容について it が何を指しているかを明らかにしながら, 日本語で説明しなさい。
7. 以下の空所(①)~(⑥)に入る最も適切な語句を Figure 1 と Figure 2 にある語句から選びなさい。

Figure 1 indicates that conventional meat, especially (①) followed by (②), is very inefficient to produce for the nutrition we get from it. Thus, switching to (③) could help to reduce energy use, greenhouse gas emissions and land use as a whole.

Figure 2 also shows how much more water meat requires. If we are to feed a growing world's population, we will have to use limited water resources wisely. In this respect, among the 11 products shown in Figure 2, (④) seem to be most suited to land where water supply is limited. (⑤), one of the world's staple crops, needs as much water as (⑥), but still less water than other kinds of meat. Therefore, we may have no option but to eat more plants and less meat in the future.

8. 次のそれぞれの記述について, 本文の内容に合っているものにはTを, そうでないものにはFを記入しなさい。
- (A) Companies developing synthetic milk compare the process to making beer.
- (B) Currently 30% of the seaweed naturally grown is taken for food.
- (C) People can buy mock meats at a grocery store.
- (D) Precision agriculture means that crop management is made precise with the help of digital technology.

Ⅲ あなたは speed dating についてのディベート大会に参加します。以下の英文を参考にして、自分自身の論拠を示しながら賛成と反対の意見をそれぞれ 50 語以上の英語で書きなさい。

These days, the population of Japan is in decline. Some people are getting married later. Some people are deciding not to marry. Meeting marriage partners is difficult. In the past, *Omiai* was practiced, but it is uncommon today. Some people in Japan support alternative matchmaking practices, including speed dating.

Speed dating helps single men and women meet a large number of people. They meet each other for short three to eight minute “dates”. At the end of the event, they submit a list of people who they would like to meet again. If there is a match, contact information is given to both parties.

Speed dating has some advantages. First, it is fun. Also, everybody is there to get married. They are grouped with people the same age. Participants can come alone without feeling shy. Also, it is something that women can do in groups. People do not feel pressure, because the matching happens after the event.

On the other hand, speed dating has some disadvantages. Many speed dating events are held in bars. Many people don't like bars. Also, a couple that decides they are not a good match quickly must sit together until the end of the “date”. Most speed dating events match people at random. Participants will meet different “types” that they might not normally talk to.