

令和3年度 個別学力試験問題

外国語 (英語)

(120分)

●総合選抜

文系Ⅰ, 理系Ⅰ, 理系Ⅱ, 理系Ⅲ

●学類・専門学群選抜

人文・文化学群 (人文学類, 比較文化学類)

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)

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10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。)

Ageism is a hidden bias in our society. The proverb 'old is gold' does not apply to the older population in our society. Jokes are made at the expense of the (1) older population, showing them variously as bad-tempered or lovable. Older people are teased about their cognitive abilities, ignored and not taken seriously, and there is a greater assumption that they have physical and mental impairments. Anti-wrinkle creams and treatments crowd the shelves. In a 2004 report by Age Concern in the UK, one in three people surveyed thought older people are 'incompetent and incapable'. Explicit discrimination and bias are illegal and also increasingly frowned upon. Yet implicit biases against age persist.

Age-related stereotypes are unlike the ones shaped by gender or race. They (2) are unique in the way that even the ones belonging to the in-group hold the same negative stereotypes. When over the course of the first 50-odd years of our lives we see and internalise the negative stereotypes associated with ageing, the implicit bias is so strong that we do not have the opportunity to develop a mechanism that would allow us to create strong in-group bonds. We are often complicit* in our own marginalisation too as we grow older through the implicit bias we ourselves carry against old age. This leads to an implicit out-group (3) favouritism, where the old are seen to associate strongly with the younger group. When someone says 'you are only as old as you feel' or uses the phrase 'young at heart' or claims that they 'don't feel old' they are displaying some of the implicit biases and fears associated with ageing. Ageing is a highly salient and negative implicit bias, and most of the associations with ageing are those associated with anxiety and fear of 'losing our marbles*' and then inevitable death. Unlike other stereotypes, there is no benefit in associating with our in-group. Instead, it is the out-group that affords the benefit of health and long life.

While negative, age-related implicit biases are shaped by subliminal priming*, through seeing images of older people portrayed in a negative light, the effect can also be temporarily reversed by showing positive visual stimuli, such as images of positive role models. But since this is a unique kind of bias, where out-group favouritism is significant as opposed to the usual in-group attachment and affiliations, it is important to address the implicit biases and negative stereotypes that older people have of themselves and the stereotypes⁽⁴⁾ that make some individuals try to thwart* the ageing process with cosmetic procedures and interventions. Stanford University sociologist Doug McAdam calls it 'cognitive liberation', where people have to collectively (and individually) recognise and define their situation as unjust and one that can be changed by collective action.

Virtual embodiment — an illusion created in immersive virtual reality where a virtual body is seen as our own — has been used in a novel exploratory environment to address bias against old people. In this particular experiment, 30⁽⁵⁾ young men were recruited at the University of Barcelona to see if having an older virtual body (in this case, that of Albert Einstein) can change people's perception of older people. While also enhancing the cognitive abilities of the participants, the embodiment of an older body altered their view of age and led to a reduction of implicit bias against the elderly. The participants did not have to imagine being old; they inhabited the body of an older person and experienced it directly. Since the transformed self is now similar to the out-group ((ｱ) people in this case), the negative value associated with the out-group is disrupted and therefore out-group prejudice is (ｲ). By remodelling the perceptions of self, the associated physiological characteristics could be transformed too. In this particular case, though, it is not clear whether this change in implicit bias was because of an association with a famous person (Einstein) or truly because of the virtual illusion of transformed self. There have been other experiments with white people given black virtual bodies that have shown a reduction in their implicit bias against black people lasting at least a week. Literally 'stepping into

someone else's shoes' can give us an important perspective on their experiences, and so minimise the biases that we carry.

Ashton Applewhite, author of *This Chair Rocks: A Manifesto Against Ageism*, says the words and language we use around ageing and with reference to old people matter because 'if we diminish our regard for the senior members of our society verbally, we are likely to do the same when it comes to the way we frame policy — removing their dignity and sense of agency in generalisations that assume vulnerability and dependence instead of resilience and independence.' Ashton questions the binary young/old view of the world, and words such as 'the elderly' that suggest a homogenous group. If we view age as a spectrum, then we minimise the effects of overgeneralisation.

出典：Pragya Agarwal (2020) *Sway: Unravelling Unconscious Bias*, pp. 315–326, Bloomsbury Sigma, London より抜粋，一部改変

- (注) complicit 共謀して
marbles 知力，正気
subliminal priming 閾下プライミング。先に与えられた刺激によって、後の刺激の処理の仕方に無意識のうちに影響が出る現象
thwart 阻止する

(注意) 解答する際，句読点は1マスに1文字記入すること。

1. 下線部(1)の at the expense of の代わりにここで使える表現として最も適切なものを次の中から1つ選び，記号で答えなさい。
- (A) mentally damaging
 - (B) spending money on
 - (C) with the loss of
 - (D) without respect for

2. 下線部(2)について、They が指す内容を明らかにし、それがどのような点で unique なのか、50 字以内の日本語で説明しなさい。
3. 下線部(3) out-group favouritism とはどのようなことか、文脈に即して 25 字以内の日本語で説明しなさい。
4. 下線部(4)の address の代わりとして最も適切なものを次の中から 1 つ選び、記号で答えなさい。
- (A) confront (B) defend
(C) make a speech about (D) send a letter about
5. 下線部(5) this particular experiment の目的を 40 字以内の日本語で具体的に説明しなさい。
6. 空所(ア)(イ)に入れる語の組み合わせとして最も適切なものを次の中から 1 つ選び、記号で答えなさい。
- (A) (ア) older (イ) increased
(B) (ア) older (イ) reduced
(C) (ア) younger (イ) increased
(D) (ア) younger (イ) reduced
7. 下線部(6) do the same の内容を具体的に 20 字以内の日本語で説明しなさい。
8. 下線部(7)の we view age as a spectrum とはどのようなことか、40 字以内の日本語で説明しなさい。

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。)

When Margaret Morris goes to the grocery store, people ask if she's⁽¹⁾ throwing a party. Her cart is filled with French fries, cheesecakes, meat pies and other tasty treats. "I snoop around looking for specials," she says. "I spend a lot of money on food." Morris is a *neuroscientist* — someone who studies the brain. She works at the University of New South Wales in Sydney, Australia. And yes, she is throwing a party. But her guests aren't people. This fast-food feast is destined for her lab rats. After a few weeks of all the junk food they can eat, Morris and her colleagues run the rats through a series of tasks, testing the limits of their learning and memory.

Morris studies what's called the gut-brain axis.⁽²⁾ It refers to the ongoing conversation taking place between the brain and gut. Because of this chatter, our innards* — and the microbes* living in them — can affect how we think and behave. Our brain, in turn, can talk back to our stomach and intestines* and their bacterial inhabitants. By studying how residents of our gut influence our brain, Morris and other scientists seek to find out just how much *you are what you eat*. Their results may one day enable us to change our feelings and behaviors — all with the right mix of foods and microbes.

It's no surprise that our brain sends signals to our gut to control digestion and other tasks. The brain sends its orders via the vagus nerve*. This long structure wanders from the very base of the brain down to the gut. Along the way, it touches many other organs. The brain makes hormones — chemical signals that it drips into the bloodstream. These, too, flow to the gut. Both the⁽³⁾ vagus nerve and hormones can signal hunger and fullness. They can control, too, how quickly food moves through us.

But the gut doesn't just listen. It also talks back. Microbes inside our stomach and intestines help break down food. Those microbes create waste

products that can themselves serve as chemical messengers. These waste molecules can trigger a cascade* of signals throughout the rest of the body. Some microbial cross-talk prompts stomach-lining cells to send chemical text-messages to the immune system. This can protect us from infection. Some microbes shoot molecular signals back up the vagus nerve. Others pump messages — hormones — into the bloodstream, from which they'll travel to the brain. Those hormones can affect everything from memory skills to mood.

The brain and gut send constant cascades of notes back and forth, more than any social media. According to Mark Lyte, a microbial endocrinologist* at Iowa State University in Ames, that peaceful communication⁽⁴⁾ serves a critical purpose. “You have trillions of bugs in your gut and you rely on them for a lot of your nutrients. But they rely on you to sustain themselves,” he says. “They need to communicate with you. And you need to communicate with them.”⁽⁵⁾ Exactly what the messages say depends on who's sending them.⁽⁶⁾ A gut filled with fruits and vegetables will house a different set of microbes than one used to a diet of chips, soda and other junk foods. And the messages sent by those different sets of gut microbes may affect our brains differently.

This is where Morris' rat parties come in. After two weeks on a junk-food diet full of cakes and fries, her lab rats take a memory test. Each rat investigates a space filled with objects. Then, after the rat leaves, Morris and her colleagues move some of the objects around. The next day, they put the rat back into the space. If it notices a change in the furnishings, it will spend more time sniffing around the objects that had moved. Tests like this one rely on an area of the brain called the *hippocampus** (there are two in each brain). These regions are very important for learning and memory. But after a few weeks of downing junk food, a rat's hippocampi no longer work so well.⁽⁷⁾ The rats don't seem to recognize which objects have been moved, unlike those that ate healthy foods. Could this be because of their gut bugs? Rats that dine on fast food have a less diverse group of microbes in their guts, Morris and her group find. But

their gut diversity returned when the scientists gave the junk-food-eating animals a high dose of a *probiotic* — a mix of (ア) gut bacteria. Their memory also improved. Morris and her colleagues published their findings in the March 2017 *Molecular Psychiatry*.

出典：Bethany Brookshire (2018) “Belly Bacteria Can Shape Mood and Behavior.”

<https://www.sciencenewsforstudents.org/article/belly-bacteria-can-shape-mood-and-behavior> より抜粋，一部改変

- (注) innards 内臓
microbe 微生物，病原菌
intestine 腸
vagus nerve 迷走神経
cascade 滝，滝状のもの
endocrinologist 内分泌学者
hippocampus 海馬，複数形は hippocampi

(注意) 解答する際，句読点は1マスに1文字記入すること。

1. 下線部(1)の中の party の目的は何か，本文に即して 40 字以内の日本語で説明しなさい。
2. 下線部(2)の *gut-brain axis* と同じ意味を表す表現を次の中から 1 つ選び，記号で答えなさい。
(A) gut-brain expectation (B) gut-brain interaction
(C) gut-brain separation (D) gut-brain unification
3. 下線部(3)の Both the vagus nerve and hormones の役割について，本文に即して 35 字以内の日本語で説明しなさい。

4. 下線部(4)の that peaceful communication が指す内容を、本文に即して 30 字以内の日本語で説明しなさい。
5. 下線部(5)と(6)の them はそれぞれ何を指しているか、本文中からそれぞれ 1 語を抜き出して書きなさい。
6. 下線部(7)のようになるのはなぜか、本文に即して 40 字以内の日本語で説明しなさい。
7. 空所(ア)に入る最も適切な語を次の中から選び、記号で答えなさい。
(A) beneficial (B) harmful (C) influential (D) neutral

Ⅲ 次の[A], [B]に答えなさい。

[A] 下の英文の文脈に適合するように、(1)から(3)の()内の語または句を並べ替えるとき、それぞれ3番目と5番目にくるものを選び、記号で答えなさい。

Bushidō, or the “way of the warrior,” is often considered a foundation stone of Japanese culture, both by Japanese people and by outside observers of the country. It is difficult to say exactly when *bushidō* developed. Certainly, many of the basic ideas of *bushidō*—loyalty to one’s family and one’s lord, personal honor, bravery and skill in battle, and courage in the face of death—(1)(① important ② for ③ likely been ④ to ⑤ have ⑥ samurai) centuries. Amusingly, scholars of ancient and medieval Japan often call *bushidō* a modern invention from the Meiji and Shōwa eras. Meanwhile, (2) (① study ② readers ③ who ④ Meiji and Shōwa Japan ⑤ scholars ⑥ direct) to study ancient and medieval history to learn more about the origins of *bushidō*. Both positions are correct, in a way. The word “*bushidō*” (3) (① did ② until ③ appear ④ not ⑤ the Meiji Restoration ⑥ after), but many of the concepts included in *bushidō* were present in Tokugawa society.

出典：Kallie Szczepanski (April 2, 2018) “The Role of Bushido in Modern Japan,” *ThoughtCo* より抜粋，一部改変
(<https://www.thoughtco.com/role-of-bushido-in-modern-japan-195569>)

- | | | |
|-----|-----------|-----------|
| (1) | 3番目 _____ | 5番目 _____ |
| (2) | 3番目 _____ | 5番目 _____ |
| (3) | 3番目 _____ | 5番目 _____ |

[B] 次の英文を読んで、その内容に関連づけながら、環境への取り組みに対するあなたの考えを100語程度の英語で述べなさい。ただし、句読点は語数に含めません。

In July 2020, Japan started to require convenience stores, supermarkets, drugstores and other retail outlets to charge for plastic shopping bags. The initiative is aimed at encouraging shoppers to bring their own bags and comes as Japan falls behind other countries in reducing the use of plastics. China, Britain, France and South Korea are among countries which have started charging for plastic shopping bags. Some foreign countries have also expanded the scope of plastic regulations beyond shopping bags to plates and straws. Some experts say that Japan should also start debating the reduction and reuse of other disposable plastic products, such as bento lunch boxes, straws, bottles and food packages. Over 8 million tons of plastic waste is estimated to flow into the oceans every year. Japan was responsible for the largest amount per person after the United States, according to data from the United Nations.

出典：Kyodo News (July 1, 2020) “Mandatory charging for plastic shopping bags starts in Japan,” *Kyodo News* より抜粋，一部改変
(<https://english.kyodonews.net/news/2020/07/41acd34e2118-mandatory-charging-for-plastic-shopping-bags-starts-in-japan.html>)