

英	語
(問題)	
2016年度	

〈2016 H28100111〉

注 意 事 項

1. 試験開始の指示があるまで、問題冊子および解答用紙には手を触れないこと。
2. 問題は2～11ページに記載されている。試験中に問題冊子の印刷不鮮明、ページの落丁・乱丁及び解答用紙の汚損等に気付いた場合は、手を挙げて監督員に知らせること。
3. 解答はすべて、HBの黒鉛筆またはHBのシャープペンシルで記入すること。
4. マーク解答用紙記入上の注意
 - (1) 印刷されている受験番号が、自分の受験番号と一致していることを確認したうえで、氏名欄に氏名を記入すること。
 - (2) マーク欄にははっきりとマークすること。また、訂正する場合は、消しゴムで丁寧に、消し残しがないようによく消すこと。

マークする時	<input checked="" type="radio"/>	良い	<input type="radio"/>	悪い	<input type="radio"/>	悪い
マークを消す時	<input type="radio"/>	良い	<input type="radio"/>	悪い	<input type="radio"/>	悪い

5. 記述解答用紙記入上の注意
 - (1) 記述解答用紙の所定欄（2カ所）に、氏名および受験番号を正確に丁寧に記入すること。
 - (2) 所定欄以外に受験番号・氏名を書いてはならない。
 - (3) 受験番号の記入にあたっては、次の数字見本にしたがい、読みやすいように、正確に丁寧に記入すること。

数字見本	0	1	2	3	4	5	6	7	8	9
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- (4) 受験番号は右詰めで記入し、余白が生じる場合でも受験番号の前に「0」を記入しないこと。

(例) 3825番⇒	万	千	百	十	一
	3	8	2	5	

6. 解答はすべて所定の解答欄に記入すること。所定欄以外に何かを記入した解答用紙は採点の対象外となる場合がある。
7. 試験終了の指示が出たら、すぐに解答をやめ、筆記用具を置き解答用紙を裏返しにすること。
8. いかなる場合でも、解答用紙は必ず提出すること。
9. 試験終了後、問題冊子は持ち帰ること。

I Read this article and answer the questions below.

Would You Kill the Fat Man? is the title of a recent book about a set of moral problems that philosophers like to ponder, and psychologists to put to their experimental subjects. In the standard form, you are on a bridge overlooking a railway track. You see a trolley speeding along the track and, ahead of it, five people tied to the rails. Can these five be saved? There is a very fat man leaning over the railing watching the trolley. If you were to push him off the bridge, he would tumble down and smash onto the track below. He is so obese that his bulk would bring the trolley to a shuddering halt. Sadly, the process would kill the fat man. But it would save the other five. (You cannot stop the trolley by jumping yourself; only the fat man is heavy enough.) Would you kill the fat man?

Most people are shocked by the idea of pushing the man to his death. But alter the scenario a bit, and reactions change. People are more likely to pull a lever that would switch the trolley onto another track, where it will kill only one person. The utilitarian calculation is identical—but the physical and emotional distance from the killing makes pulling the lever much more popular than throwing the man.

(A)

Costa and his colleagues interviewed 317 people, all of whom spoke two languages—mostly English plus one of Spanish, Korean, or French. Half of each group were randomly assigned the dilemma in their (B) tongue. The other half answered the problem in their second language. When asked in their (C) language, only 20 percent of subjects said they would push the fat man. When asked in the (D) language, the proportion jumped to 33 percent.

Morally speaking, this is a troubling result. The language in which a dilemma is posed should make no difference to how it is answered. Linguists have wondered whether different languages encode different assumptions about morality, which might explain the result. But the effect existed for every combination of languages that the researchers looked at, so culture does not seem to explain things. Other studies in “trolleyology” have found that East Asians are less likely to make the coldly utilitarian calculation, and indeed none of the Korean subjects said they would push the fat man when asked in Korean. But 7.5 percent were prepared to when asked in English.

The explanation seems to lie in the difference between being merely competent in a foreign language and being fluent. The subjects in the experiment were not native bilinguals, but had, on average, begun the study of their foreign language at age 14. (The average age of the subjects was 21.) The participants typically rated their ability with their acquired tongue at (E). Their language skills were, in other words, pretty good—but not great.

Several psychologists, including Daniel Kahneman, who was awarded the Nobel Prize in economics in 2002 for his work on how people make decisions, think that the mind uses two separate cognitive systems—one for quick, intuitive decisions and another that makes slower, more reasoned choices. These can conflict, which is what the trolley dilemma is designed to provoke: normal people have a strong moral dislike of killing (the intuitive system), but can nonetheless recognize that one death is, mathematically speaking, better than five (the reasoning system).

This latest study fits with other research which suggests that speaking a foreign language boosts the second system—provided, that is, you (F) Earlier work, by some of the same scholars who performed this new study, found that people tend to fare better on tests of pure logic in a foreign language—and particularly on questions with an obvious-but-wrong answer and a correct answer that takes time to work out.

Costa and his colleagues hypothesize that, while fluent speakers can form sentences effortlessly, the merely competent must spend more brainpower, and reason much more carefully, when operating in their less-familiar tongue. And that kind of thinking helps to provide psychological and emotional distance, in much the same way as (G) As further support for that idea, the researchers note that the effect of speaking the foreign language became smaller as the speaker’s familiarity with it increased.

Regardless of the exact mental mechanism behind the team’s findings, they could have big

implications. Boaz Keysar, a psychologist at the University of Chicago and one of the study's authors, talks of investigating the impact on medical or legal decision-making. Meanwhile, globalization is boosting the number of bilinguals. There are more nonnative English speakers (500 million, by one estimate) than native ones (perhaps 340 million). Big firms are making English their internal language, even if it is not the native tongue of most of their workers. Meetings of international organizations like the United Nations and the European Union are often conducted in languages that are not the preferred ones of most of those attending. Perhaps it is reassuring to think they may be more coolly rational than meetings of monolingual speakers—unless, that is, you are the metaphorical fat man about to be pushed under a train.

Adapted from "Gained in Translation," The Economist (May 17, 2014),

and David Edmonds, Would You Kill the Fat Man?

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- 1 Choose the most suitable order of sentences from those below to fill in blank space (A).
 - (a) A rather counterintuitive one was reported in a paper published last month in *PLOS ONE*, a journal.
 - (b) In it, Albert Costa, of the Universitat Pompeu Fabra in Spain, and his colleagues found that the language in which the dilemma is posed can alter how people answer.
 - (c) There are other ways to influence people's judgments, too.
 - (d) To be specific, when people are asked the fat-man question in a foreign language, they are more likely to kill him for the others' sake.

- 2 Choose the most suitable combination of words from those below to fill in blank spaces (B), (C), and (D).
 - (a) foreign—foreign—native
 - (b) foreign—native—foreign
 - (c) native—foreign—native
 - (d) native—native—foreign
 - (e) native—native—native

- 3 Choose the most suitable answer from those below to complete the following sentence.
The writer thinks the findings of Costa and his colleagues are morally troubling because
 - (a) a combination of languages is said to be the key to understanding morality.
 - (b) dealing with a dilemma should not be influenced by the language used.
 - (c) East Asians tend to make the same decisions regardless of language.
 - (d) many linguists have disagreed with the conclusions of the study.
 - (e) there seem to be a number of hidden cultural factors behind the research.

- 4 Use the seven words below to fill in blank space (E) in the best way. Indicate your choices for the second, fourth, and sixth positions.
 - (a) a (b) close (c) five-point (d) on
 - (e) scale (f) three (g) to

- 5 Choose the most suitable answer from those below to fill in blank space (F).
 - (a) aren't ignorant of the culture of the language.
 - (b) become as fluent as a native speaker.
 - (c) don't speak it as well as a native.
 - (d) speak three or more languages.
 - (e) started studying the language as an adult.

- 6 Choose the most suitable answer from those below to fill in blank space (G).
- (a) asking the fat man to join the other five.
 - (b) forcing the fat man to jump.
 - (c) putting the fat man on the trolley.
 - (d) refusing to help the fat man.
 - (e) replacing the fat man with a lever.
- 7 Choose the most suitable answer from those below to complete the following sentence.
The writer suggests, based on the findings of Costa and his colleagues, that
- (a) linguists are unconcerned about the language used in medicine and law.
 - (b) meetings conducted by monolingual speakers might produce the most rational results.
 - (c) speakers who are merely competent in a foreign language often suffer psychologically and emotionally.
 - (d) the use of English, for example, may contribute to rational decision-making at international organizations.
 - (e) there is no significant difference between fluency and competence in foreign languages.

II Read this article and answer the questions below.

1 June 2009: Air France flight 447 is cruising from Rio de Janeiro to Paris when it hits a tropical storm in the mid-Atlantic. Minutes later, the Airbus A330 flies into the ocean, killing all 228 people on board. On a sunny July morning four years later, a flight approaching San Francisco airport smashes into the sea wall just ahead of the runway, causing the entire tail section to break off and sending the fractured fuselage cartwheeling across the airstrip. Three people died and dozens were injured. These different incidents appear unrelated, yet they share a tragic similarity: the pilot of each plane believed his flight control systems would automatically prevent the aircraft from stalling or flying too slowly to stay airborne. They were wrong.

It turns out that this type of mix-up is a major contributor to a number of air crashes. And the situation is (A). With more things becoming automated, pilots can get confused when something goes seriously wrong, losing track of where the autopilot's responsibility ends and theirs begins. It is a recipe for disaster. So is it time to lose the human pilot altogether? Certainly many in the industry think so. Far better, they argue, for airliners to fly on autopilot, under the remote supervision of human pilots in an office thousands of kilometers away. Safety-wise it seems to make sense—flight-crew error has been suspected in about half of all fatal airline accidents.

Along with improved safety, pilotless passenger planes could offer dramatic cost savings for airlines and passengers alike. Without pilots, airlines would spend far less on salaries, simulator training, healthcare, layover hotels, and retirement benefits, says Mary Cummings, a researcher at Duke University, in Durham, North Carolina. That should translate into lower fares, and automated flight should also be more fuel efficient, helping to further reduce costs and cut greenhouse gas emissions. And with the pointy end of the aircraft no longer taken up by crew, spectacular, panoramic views would be on offer to passengers in the front seats—provided they pay a little extra, of course. There's just one key question: how would you feel boarding a plane without a human hand at the controls?

(B)

Yet automation introduces fresh challenges for pilots. When autoflight computers experience situations they haven't been programmed to handle—sudden structural damage to the aircraft, say, or extreme weather like that experienced by flight 447—they can unexpectedly throw responsibility back to the pilots. Those pilots may become confused over the level of control they have been handed when something goes seriously wrong. Equally dangerous is the fact that flight-deck computers can overload pilots with a stream of alerts, checklists, and audible alarms at critical moments. In November 2010, for instance, an engine exploded on Qantas flight 32 with 469 people on board, cutting 650 control wires. Yet as pilot Richard de Crespigny tried to land at Singapore, he and his co-pilot were disturbed by 120 menus of instructions flashing on their screens.

Cummings believes that the era of fully automated planes is inevitable. In her former job as a U.S. Navy pilot, she realized her fighter jet's autoflight system made her practically unnecessary. It could land the craft on the deck of an aircraft carrier far better than a human, she says. "It adjusted direction, airspeed, and altitude much faster than I could." Computers have the edge in split-second operations because eye-to-brain communication is slower than sensor-to-processor transmission. "From the time you see a stimulus that requires action to the time you act on it is at best half a second," she says. A computer, meanwhile, takes just milliseconds to detect sensor signals and act on them. "Humans cannot keep up."

The experience of the U.S. military with remotely controlled aircraft confirms this—their crash rate dropped markedly the more automated they became. In particular, improvements were achieved by preventing pilots flying during takeoffs and landings, when crashes frequently happened. "Takeoffs and landings are close to the highest workloads pilots experience," says Cummings—almost half of all fatal airline incidents occur during these stages of flight.

So how far away are pilotless passenger planes? Well, one already exists, in a way. An unpiloted

Jetstream airliner operated by BAE Systems, in the U.K., has been flying 800-kilometer trips to see how it interacts with other aircraft and air traffic controllers—although it still has a crew on board, (C).

Despite these advances, it is unlikely that passenger airlines will be the first to introduce pilotless planes. Cummings expects cargo carriers such as FedEx and UPS to be the first plane operators to drop from two pilots to just one. (D) to be tested in the same aircraft as those used by airlines, but with no passengers aboard. If that proves safe, we can expect to see cargo airlines abandoning the crew completely by around 2035, she suggests. Instead, a pilot based at a company's hub would watch over a fleet of cargo planes via satellite, ready to assume control if anything goes wrong.

But pilots are unlikely to let themselves be replaced by technology without a fight. "We will only be able to build reliable pilotless aircraft when we can reproduce human consciousness, awareness, and prediction in a machine," says de Crespigny. "Until then it is pilots who have the only chance of saving people." Richard Toomer, spokesman for the British Airline Pilots Association agrees: "Passengers want to know they are in the hands of two well-trained, well-rested pilots. We can't see that changing anytime soon."

Adapted from <http://www.newscientist.com/article/mg22329810.400-whos-flying-this-thing-end-in-sight-for-pilots.html?full=true#VBaL75RKjZE>

- 1 Choose the most suitable answer from those below to fill in blank space (A).
 - (a) about to improve
 - (b) on the point of being lost
 - (c) ready to be forgotten
 - (d) set to get worse
 - (e) soon to be resolved

- 2 Choose the most suitable answer from those below to complete the following sentence.

The principal problem with using computers alone to fly planes is that

 - (a) airlines would have to lower their fares, with the result that they would make less profit.
 - (b) airplanes then have to fly more slowly, so flights would take more time.
 - (c) passengers may feel insecure without a human pilot flying the plane.
 - (d) the cost of maintaining high-end computers is likely to increase the price of tickets.
 - (e) those flying in the front of an aircraft would find their seats smaller than they are now.

- 3 Choose the most suitable order of sentences from those below to fill in blank space (B).
 - (a) And the computer has long been able to pick up a runway radio signal and land the aircraft automatically.
 - (b) Autoflight computers can take over when the plane is just 30 meters off the ground.
 - (c) They then maintain whatever speed, heading, and height the crew program into the flight-management system.
 - (d) This revolution arises out of a simple fact: computers now do so much on planes that airline pilots rarely have cause to take the controls during any of the three major stages of the flight.

- 4 Choose the most suitable answer from those below to complete the following sentence.

Computers may cause problems for pilots on planes by

 - (a) changing the flight path that has been decided by the airline company.
 - (b) choosing to do something with which the pilot agrees.
 - (c) disturbing a pilot at an important time by setting off alarms.
 - (d) losing power suddenly and shutting down.
 - (e) trying to take over the flight controls at unexpected moments.

- 5 Choose the most suitable answer from those below to complete the following sentence.
According to one pilot who has flown navy jets, computers will eventually replace human pilots because computers
- (a) are much more economical to operate on a daily basis.
 - (b) can be trusted not to panic in a dangerous situation.
 - (c) do not suffer from physical problems such as getting tired.
 - (d) react to a situation more quickly than humans can.
 - (e) require no training of the sort that human pilots need.
- 6 Choose the most suitable answer from those below to fill in blank space (C).
- (a) at all costs
 - (b) in all probability
 - (c) just in case
 - (d) so they seem
 - (e) to be specific
- 7 Use six of the seven words below to fill in blank space (D) in the best way. Indicate your choices for the second, fourth, and sixth positions.
- | | | | |
|-----------|----------|----------|----------------|
| (a) allow | (b) new | (c) of | (d) technology |
| (e) the | (f) this | (g) will | |

III Read this letter by Martin Luther King Jr. and answer the questions below.

16 April 1963

My Dear Fellow Clergymen:

※この問題は、著作権の関係により掲載ができません。

※この問題は、著作権の関係により掲載ができません。

Adapted from http://mlk-kpp01.stanford.edu/index.php/encyclopedia/documentsentry/annotated_letter_from_birmingham

1 Choose the most suitable answer from those below to complete the following sentence.

Martin Luther King Jr. came to Birmingham because

- (a) he had been arrested for his actions and sent to jail there.
- (b) he was invited to take part in sit-ins and marches.
- (c) his organization wanted to represent the city's white community, too.
- (d) his secretaries had asked him to answer criticisms of his work.
- (e) the city was the place he originally came from.

2 Choose the most suitable answer from those below to fill in blank space (A).

- (a) it is even more unfortunate
- (b) it is less likely
- (c) we are relieved to know
- (d) we are unconcerned
- (e) we consider it desirable

- 3 Choose the most suitable order of sentences from those below to fill in blank space (B).
- (a) As the weeks and months went by, we realized that we were the victims of a broken promise.
 - (b) In the course of the negotiations, certain promises were made by the merchants—for example, to remove the stores' humiliating racial signs.
 - (c) On the basis of these promises, the Reverend Fred Shuttlesworth and the leaders of the Alabama Christian Movement for Human Rights agreed to a moratorium on all demonstrations.
 - (d) Then, last September, came the opportunity to talk with leaders of Birmingham's economic community.
- 4 Use the seven words below to fill in blank space (C) in the best way. Indicate your choices for the second, fourth, and sixth positions.
- (a) bear (b) bring (c) city (d) merchants
 - (e) on (f) pressure (g) to
- 5 Choose the most suitable answer from those below to complete the following sentence.
According to King,
- (a) it is impossible for nonviolent demonstration to dramatize an issue.
 - (b) "self-purification" was the process that led to his moral growth.
 - (c) Socrates admitted that he was not free from racism and prejudice.
 - (d) tension is sometimes required in society for its development.
 - (e) violence is occasionally necessary in order to achieve results.
- 6 Choose the most suitable answer from those below to complete the following sentence.
King believes that the aim of direct action is to
- (a) force the other side to agree to discussions.
 - (b) give the city more time to make new laws.
 - (c) help find suitable candidates for the next election.
 - (d) prepare for protest marches outside of Birmingham.
 - (e) prevent a serious crisis from arising.
- 7 Choose the most suitable answer from those below to complete the following sentence.
At the time he was writing this letter, King was
- (a) confident that the new mayor would end racial segregation in Birmingham.
 - (b) convinced that civil rights could only be achieved through direct action.
 - (c) pessimistic about any individual voluntarily giving up a racist attitude.
 - (d) uncertain about whether Birmingham was a racially segregated city.
 - (e) unsure whether a nonviolent approach would be as effective as violent action.

IV Read this dialogue and answer the questions below.

Gary: So you're practicing chess by playing against the computer?

Bob: Yeah. The chess programs they have these days are really strong. Care to try?

Gary: (A) This should be a piece of cake. There's no way a machine can play better than someone like me.

Bob: You mean simply because you can beat me? I wouldn't (B) if I were you.

Gary: You'll see.... Look, I've already captured a pawn. Now I'll just move my bishop over to this square and...

Bob: Are you sure you want to do that? (C) as being a little risky.

Gary: Hey, you've got to think ahead in this game. I'm just setting a little trap (D).

Bob: Uh-oh, looks like the computer has taken your bishop. Maybe (E) a little further.

Gary: Wait—I think I should be able to take that move back. After all, my hand was still on the mouse!

1 Choose the most suitable answer from those below to fill in blank space (A).

- (a) Be my guest. (b) I have it. (c) Not just now.
(d) That's enough. (e) You bet.

2 Choose the most suitable answer from those below to fill in blank space (B).

- (a) be so sure (b) feel so nervous (c) have the time
(d) know the difference (e) try so hard

3 Choose the most suitable answer from those below to fill in blank space (C).

- (a) Beats me (b) Holds me (c) Makes me
(d) Strikes me (e) Takes me

4 Use six of the seven words below to fill in blank space (D) in the best way. Indicate your choices for the second, fourth, and sixth positions.

- (a) by (b) computer (c) fall (d) for
(e) into (f) the (g) to

5 Use six of the seven words below to fill in blank space (E) in the best way. Indicate your choices for the second, fourth, and sixth positions.

- (a) ahead (b) been (c) have (d) is
(e) should (f) thinking (g) you

V Read the statement below and write a paragraph giving at least two reasons why you agree or disagree with it. Write your answer in English in the space provided on your written answer sheet.

(It is suggested that you spend no more than 15 minutes on this section.)

"Smoking should be made illegal in Japan."

[END OF TEST]

