2020年度 入学試験問題

英語

注 意

- (1) 解答用紙には受験番号の記入欄が3か所ある。 3か所とも正確、明瞭に記入すること。
- (2) 解答用紙には氏名の記入欄が1か所ある。 正確、明瞭に記入すること。
- (3) 解答はすべて解答用紙の所定欄に記入すること。 解答用紙の裏面は使用してはならない。
- (4) 問題紙の本文は17ページある。 試験開始後、落丁・損傷がないか確認すること。
- (5) 試験終了後、問題紙は各自持ち帰ること。

当となるながれるが 9 (科田名) はんななればないません P. 16 上から1 (行め) P. 17 下から2/行め III (配号

[] 次の文章を読んで設問に答えなさい。[*印のついた語句は注を参照しなさい。](68点)

Picture an apple. What color is it? What about calling to mind your mother's face? What is her expression? How about your last holiday? Can you picture where you stayed? For people with aphantasia, this is impossible. They cannot recall images of familiar objects or people to their "mind's eye." In effect they don't have one. This crucial difference in the way people see the world has only started to be researched in the last few years. How have we gone for so long ignoring this variation in how we experience our internal worlds?

Aphantasia is the name given to the inability to call an image to mind. The name was coined in 2015 by Professor Adam Zeman, a cognitive and behavioral neurologist* at the University of Exeter. Zeman first became aware of the phenomenon when he was referred* a patient who had "lost" his visual imagery after a heart operation. "He had vivid imagery previously," recalls Zeman. "He used to get himself to sleep by imagining friends and family. Following the cardiac* procedure, he couldn't visualize anything, his dreams became avisual, he said that reading was different because previously he used to enter a visual world and that no longer happened. We were intrigued*."

Zeman searched the literature on visual imagery loss and found there was little out there. "It's weird, it's just a sort of gap," he says. Back in the 1880s, Victorian polymath* Francis Galton had published a paper on mental imagery, (Y) he reported that a small number of people couldn't visualize. Since then, researchers have continued to study visual imagery but haven't paid attention to the extreme ends of the visualization spectrum. Before Zeman started studying it, there wasn't even a name for the experience. Zeman and a classicist friend came up

with "aphantasia," based on Aristotle's* term for the "mind's eye."

Zeman's assessment of his patient raised more questions than answers. The man could describe a castle, and could say whether grass or a pine tree was darker green, but he reported knowing these answers, not imagining the objects. Functional brain imaging suggested he couldn't access visual areas when he tried to imagine or remember images.

Zeman's case study about his patient was written about in *Discover* magazine by science journalist Carl Zimmer. Over the next couple of years, 20 people got in touch with Zeman to say they'd read the article and had the same absence of imagery, but they had experienced it for their entire lives. As more was written about the findings, more people got in touch. Zeman now has 12,000 aphantasic volunteers. He estimates that about 2 percent of the population have little or no visual imagery. Yet not all experiences of aphantasia are alike. Many people have had aphantasia since birth, but others have acquired it following a brain injury, or sometimes after periods of depression or psychosis*. Some individuals don't dream in images, like Zeman's first patient, but others can, even though they are unable to visualize while they're awake. (中略)

But what's going on in the brains of people with lifelong aphantasia? There have not yet been any published studies, but scientists are hoping to have some answers soon. Zeman's team has just finished studying 20 people with high visual imagery, 20 people with no visual imagery and 20 people in the middle, using neuropsychological* tests and brain imaging. "So in a few months' time we might have an answer," Zeman says. Whatever is happening neurally, it does seem to be heritable to some degree, with people with aphantasia more likely to have a close relative (parent, sibling or child) who also struggles to visualize.

One reason aphantasia may have gone nameless and unstudied for so long is because it isn't necessarily a problem. While it makes drawing objects from imagination impossible, and visualization strategies cannot be used for memorizing, there are other ways to mentally represent information. Some people use words or symbols, others report having a good "mind's ear" or "mind's nose" instead of a "mind's eye," or say that they have kinesthetic (movement-based) imagery.

While there are individuals with aphantasia who report memory difficulties, this is not true for everyone. There is a trend for people with aphantasia to work in academic and computer-related careers, and for those at the other end of the spectrum to work creatively. But there are exceptions. There are aphantasic artists, who either depict objects they see, or use images they make on the paper as a stimulus to engage with. "It's perfectly possible to be creative and imaginative without visualization," says Zeman.

Zeman doesn't think aphantasia needs diagnosis and treatment. "It's an intriguing variation in human experience, not a disorder," he says. Indeed, the scientist Craig Venter, the first person to decode the human genome*, has described his aphantasia as useful in helping him to concentrate on scientific problems.

The presence of a large and previously hidden aphantasic community reveals how it is possible for all of us to be seeing the world differently (Z) even realizing. Brain imaging can help us understand neurodiversity* of all sorts, but we'll only know there's difference to be investigated if we don't assume that you see (δ) (δ), and (δ) we (δ) curious (δ).

(By Lucy Maddox, writing for BBC Focus Magazine, February, 2018)

[注]	neurologist 神経学者
	referred (refer 紹介する)
	cardiac 心臓の
	intrigued (intrigue 興味をそそる)
	Victorian polymath ヴィクトリア女王時代の博識家
	Aristotle's アリストテレスの
	psychosis 精神病
	neuropsychological 神経心理学の
	genome ゲノム

neurodiversity 神経学からみた多様性

I-A 空所(Y)と(Z)に入るもっとも適切なものを次の $1\sim 4$ の中からそれぞれ一つ 選び、その番号を解答欄に記入しなさい。

(Y) 1 what 2 where 3 which 4 who

(Z) 1 by 2 for 3 in 4 without

I-B 下線部 (a) \sim (i) の意味・内容にもっとも近いものを次の $1\sim 4$ の中からそれぞれ一つ選び、その番号を解答欄に記入しなさい。

(a) crucial

1 curious 2 important 3 slight 4 specific

(b) operation

1 activity 2 attack 3 experiment 4 surgery

(c) weird

1 amazing 2 interesting 3 natural 4 strange

(d) came up with

1 imposed 2 opposed 3 proposed 4 supposed

(e) assessment of

1 dislike of 2 evaluation of

3 problem with 4 relationship with

- (f) heritable
 - 1 chronic
- 2 curable
- genetic
- 4 infectious

- (g) struggles
 - 1 finds it difficult

2 finds it enjoyable

3 has a skill

4 has a tendency

- (h) treatment
 - 1 generous reward

2 immediate reaction

3 medical attention

4 thorough investigation

- (i) decode
 - 1 carry on an experiment with
- 2 correctly interpret
- 3 make a partial change to
- 4 succeed in synthesizing
- I-C 波線部 (r) \sim (r) の意味・内容をもっとも的確に示すものを次の $1\sim 4$ の中から それぞれ一つ選び、その番号を解答欄に記入しなさい。
 - (7) they don't have one
 - 1 they do not have mental images
 - 2 they do not have lasting memories
 - 3 they are unable to see objects
 - 4 they are not creative
 - (1) he used to enter a visual world
 - 1 he had found words unnecessary
 - 2 he usually selected picture books
 - 3 he could picture the contents of his reading
 - 4 he chose to read in colorful places
 - (ウ) as a stimulus to engage with
 - 1 as a certificate of marriage
 - 2 as an encouragement to create problems
 - 3 as a trigger to other career possibilities
 - 4 as an inspiration for further creativity

I-D 二重下線部の空所(あ) \sim (か)に次の $1\sim7$ の中から選んだ語を入れて文を完成させたとき、(あ)と(え)に入る語の番号を解答欄に記入しなさい。同じ語を二度使ってはいけません。選択肢の中には使われないものが一つ含まれています。

if we don't assume that you see (\not b) (\lor)(\not), and (\not) we (\not b) curious (\not b)

1 ask

2 I

3 instead

4 questions

5 see

6 what

7 which

- I-E 本文の意味・内容に合致するものを次の $1\sim8$ の中から三つ選び、その番号を解答欄に記入しなさい。
 - Adam Zeman's first aphantasia patient acquired the symptoms after he had a cardiac procedure and found it difficult to read because he was unable to process and understand words.
 - 2 Many doctors have conducted studies of aphantasia since the 1880s, when one researcher noticed that a few people could not visualize, even though the condition was not named until 2015.
 - 3 Zeman's examination of his patient demonstrated that although the patient could describe the objects he had seen, it did not necessarily mean that he had visual images in his mind.
 - 4 After Zeman's case study of aphantasia became widely known through an article in *Discover*, 20 people contacted Zeman to let him know that they had had the same symptoms since they had an operation.
 - 5 It is estimated that 2 percent of the population have the symptoms of aphantasia to some degree, and there are both people who were born with them and those who have acquired them.
 - 6 Aphantasia has attracted attention for a long time because the coping mechanisms that people with this symptom use are very interesting to researchers.

- 7 Not having the ability to call an image to mind does not necessarily prevent people from working in a variety of fields including art.
- 8 The genome of aphantasia was decoded by the scientist Craig Venter for the first time while he himself was being treated for that condition.

【Ⅱ】 次の文章を読んで設問に答えなさい。[*印のついた語句は注を参照しなさい。](82点)

Bear* had sat in the same spot of her Baltimore home for three days, maybe more — without food, water or even a bathroom break, according to the animal shelter that later took her in. A 12-year-old mutt* with a graying muzzle*, the dog was found "lying loyally" by her deceased owner's side in early June, the shelter said on Facebook, "just quietly mourning."

Bear's tale, which ended happily with the dog's adoption, was only the latest iteration* of a story that has long captured imaginations: the grieving, <u>loyal</u> dog waiting in vain for its dead — or fled — owner.

In the 1920s, the protagonist* was Hachiko, an Akita who greeted his owner at a Tokyo train station every evening and then, according to the story, continued to show (X) every day for a decade after the man's death. Last fall, a Russian dog made headlines for appearing "like clockwork" every morning at the reception area of the hospital where her owner had died two years prior, according to the British news site Metro. In March, reports circulated about another Russian dog that had stayed for a year at the spot where his owner had died in a car crash. He became known as the "Siberian Hachiko." In April, an "Ecuadoran Hachiko" emerged, in the form of a dog that would not leave the earthquake-ruined home where its owner had perished.

So reliable are the stories that they have been parodied by the satirical news site *Clickhole*, which in 2014 produced a video that suggested dogs in these situations might actually be more self-interested than sorrowful. It was headlined, "This loyal dog refuses to leave a grave that has peanut butter on it."

In an increasingly pet-loving world, the idea of a dog grieving for its

master is no doubt an appealing one. But while we hate to break it to you, there's not a lot of science to back it (Y)—not yet, at least. Whether and how animals mourn is a nascent* field of study, and there's growing evidence that elephants, primates* and cetaceans* such as dolphins do it, said anthropologist* Barbara J. King, author of *How Animals Grieve*. But there's no scientific literature on dog grief yet, she said.

Alexandra Horowitz, a psychologist who heads the canine* cognition lab at Barnard College, said she doesn't rule out the idea that dogs grieve. But she interprets the Hachiko-like stories less as evidence of dog mourning than our desire to view animal actions through a human lens rather than considering the world from a dog's point of view.

"We can think about death and our own mortality and know that if we lose somebody, we're never going to see them again. I'm not sure dogs have that conception. And if they don't, their grief might be subjectively different than ours," Horowitz said.

But it's reasonable to assume that a dog whose owner had suddenly vanished would keep doing what it's used to, she added. "The dog doesn't really have much choice. It doesn't have an independent life where it can explore other ways to live. This is the life the dog has always known," Horowitz said. "It's nicer to describe it as loyalty or grieving."

King said she thinks there's no question dogs are capable of grief.

(中略) <u>But (あ) identifying (い) would (う)(え)(お) a</u>

<u>photo or video or news account, she said.</u> It would depend on observations of a dog before, during and after a death and signs of "specific externally expressed behavior around a body or just after a death." Such behavior might be lethargy* or withdrawal, she said.

"There's often a media leap to claim grief too readily. How do we know that a dog is experiencing grief (Z) opposed to experiencing

some sense of absence?" she asked. (中略) "Let's be conservative and not slap 'grief' onto everything that is actually stress-related."

Clive Wynne, a psychology professor and director of the Canine Science Collaboratory at Arizona State University, said it is "undeniable" that dogs can have deep bonds with people and "suffer emotional pain." What's not clear is how long it lasts, he said, though he doubts it endures for years. (中略)

"With dogs, you have this tremendous, heartwarming seeking of proximity* and attention, and offers of affection," he said. "But then we human beings, we're never happy. We have to add layers of embellishment* on top—like the idea that if you drop dead, your dog will come to your grave for the rest of its life."

One delightful thing about dogs, Wynne argued, is that they readily form new bonds—after all, animal rescue organizations couldn't be successful if dogs forever wallowed* in their sadness. His own dog, Wynne said, could quickly adjust if he died, while "all the evidence is that my son would be scarred for life."

"That is what human bonding is like, and it's different from dog bonding," he said. "It's not better. It's just different."

(By Karin Brulliard, writing for The Washington Post, July 5, 2016)

[注] Bear 犬の名前
mutt 雑種犬
muzzle 鼻づら
iteration 繰り返し
protagonist 主人公
nascent 始まったばかりの
primates 霊長類の動物
cetaceans クジラ、イルカなどの海洋哺乳動物

anthropologist 人類学者
canine イヌ科の
lethargy 無気力
proximity 近くにいること
embellishment 飾り
wallowed (wallow [感情に] おぼれる)

II-A 空所 $(X)\sim(Z)$ に入るもっとも適切なものを次の $1\sim4$ の中からそれぞれ一つ 選び、その番号を解答欄に記入しなさい。

(X)	1	off	2	on	3	$\operatorname{through}$	4	up
(Y)	1	down	2	off	3	out	4	up
(Z)	1	as	2	for	3	from	4	on

II-B 下線部 (a) \sim (h) の意味・内容にもっとも近いものを次の $1\sim4$ の中からそれぞれ一つ選び、その番号を解答欄に記入しなさい。

(a) loyal

1 faithful	2	loving	3	noble	4	sleepy
(b) like clockwork						
1 finally	2	punctually	3	silently	4	suddenly
(c) circulated						
1 confirmed	2	cost	3	rounded	4	spread
(d) heads						
l cleans	2	diagnoses	3	directs	4	praises
(e) rule out						
1 accept	2	exclude	3	generalize	4	steal
(f) readily						
1 critically	2	definitely	3	easily	4	slowly
(g) tremendous						
1 immediate	2	immense	3	immoral	4	immune

- (h) offers of affection
 - 1 centers of learning
- 2 expressions of fondness
- 3 spheres of influence
- 4 topics of conversation
- II C 波線部 (r)~(r) の意味・内容をもっとも的確に示すものを次の $1 \sim 4$ の中からそれぞれ一つ選び、その番号を解答欄に記入しなさい。
 - (7) which ended happily with the dog's adoption
 - 1 at the end of which the dog gave birth
 - 2 at the end of which the dog adjusted herself to the shelter
 - 3 at the end of which the dog had a new owner
 - 4 at the end of which the dog died peacefully at the shelter
 - (1) break it to you
 - 1 give you the bad news
 - 2 ease your mind
 - 3 interrupt your thoughts
 - 4 disprove the existing research
 - (ウ) slap 'grief' onto everything
 - 1 narrow down the list of what is considered 'grief'
 - 2 evaluate every aspect of 'grief'
 - 3 underestimate the importance of 'grief'
 - 4 simply attribute any behavior to 'grief'
 - (x) scarred for life
 - 1 emotionally affected for the rest of his life
 - 2 mentally prepared for death
 - 3 extremely afraid of dying
 - 4 severely injured and in danger for his life

II - D 二重下線部の空所(あ) \sim (お)に次の $1 \sim 7$ の中から選んだ語を入れて文を完成させたとき、(い)と(お)に入る語の番号を解答欄に記入しなさい。同じ語を二度使ってはいけません。選択肢の中には使われないものが二つ含まれています。

But (\not \Rightarrow) identifying (\lor) would (\Rightarrow) (\not \Rightarrow) (\not \Rightarrow) a photo or video or news account, she said.

1 require

2 it

3 has

4 than

5 accurately

6 lose

7 more

- II-E 本文の意味・内容に合致するものを次の $1\sim8$ の中から三つ選び、その番号を解答欄に記入しなさい。
 - 1 The news story of Bear in Baltimore received a great deal of media attention because she almost drowned and needed to be rescued and put in a shelter.
 - 2 In the 1920s, Hachiko was so loved by people all over the world that his offspring were taken to other places such as Siberia and Ecuador.
 - 3 The fact that scientific studies suggest that other animal species experience grief does not necessarily mean dogs do, too.
 - 4 Alexandra Horowitz thinks that the stories of dog grief must be doubted because they are told from a human perspective.
 - 5 Once started, dogs cannot stop mourning because they tend to keep doing what they feel familiar with.
 - 6 According to Barbara J. King, the sense of grief for the owner's death is so intense that we can see signs of change in a dog's body.
 - 7 Animal rescue organizations sometimes have difficulty building a close relationship with dogs because of their strong ties with their dead owners.
 - 8 All the scholars mentioned agree that if dogs do grieve, it would be different from the way human beings do.

Ⅱ-F 本文中の太い下線部を日本語に訳しなさい。

it's reasonable to assume that a dog whose owner had suddenly vanished would keep doing what it's used to

〔Ⅲ〕 次の対話を読んで設問に答えなさい。(50点)

(Jane is climbing Mt. Hiei, and meets Mr. Kato, a middle-aged photographer, close to the top.)

Mr. Kato:	Good morning!					
Jane:	Morning!					
Mr. Kato:	You are nearly there! Well done!					
Jane:	Thank you. How much further is it to the top?					
Mr. Kato:	About 500 meters I don't recommend					
	going to the top.					
Jane:	What? Why?					
Mr. Kato:	Well, up there it's all built up. You know you can even drive					
	to the top(b)(Pointing.) The best views					
	are this way.					
Jane:	But what's the point of making all this effort to climb a					
	mountain and then not even getting to the top?					
Mr. Kato:	(c) It's true, when I was your age, I would					
	have said the same thing. But when I worked in America					
	years ago, I saw a TV show about mountaineering.					
	(d)					
Jane:	Wow! How did it do that?					
Mr. Kato:	It was about the reasons why people climb mountains. And					
	they had this British professor on the program called Timothy					
	Truffle. He said, "Mountains are not made to be conquered.					
	They are made to give us new points of view." As soon as he					
	said it, I felt it was true.					
Jane:	(e) So you mean he was saying we should					
	climb to gain new perspectives?					

Mr. Kato:	Exactly. [私は山に登るという経験をして、今まで気付かなかった自					
	然の美しさが見えるようになったんですよ。] Now I'm a					
	photographer. Here is a picture I took just now.					
Jane:	(f) And this is all because of what this					
	Truffle guy said?					
Mr. Kato:	In a way, yes.					
Jane:	So if I do change my mind about getting to the top, and take					
	this path you're recommending, where will it take me?					
Mr. Kato:	According to one of Japan's old Zen philosophers, if you know					
	where a path is going, you shouldn't take it.					
Jane:	(Laughing.) I'm not sure that's very practical. I have a train					
	to Tokyo to catch tomorrow!					
Mr. Kato:	You are quite right, of course. So to answer your question,					
	this path will take you straight across to the Enryakuji					
	Temple complex—a huge number of historic and beautiful					
	buildings. Keep looking left, as you follow the path.					
	(g)					
Jane:	It sounds very tempting. But I think I'll pop up to the top					
	first, just to say I've done it, you know. Then I'll come back					
	to this point and head across to the Riakuji Temple.					
Mr. Kato:	No, it's Enryakuji.					
Jane:	Whoops! (h)					
Mr. Kato:	Enjoy the rest of your day!					
Jane:	Thank you! And it was really nice meeting you!					

- III-A 空所 (a) \sim (h) に入るもっとも適切なものを次の $1\sim$ 10の中からそれぞれ一つ選び、その番号を解答欄に記入しなさい。同じ選択肢を二度使ってはいけません。 選択肢の中には使われないものが二つ含まれています。
 - 1 I'd better practice saying that.
 - 2 That's a good question!
 - 3 He also converted me.
 - 4 It seems he had quite an impact on you.
 - 5 Plus you really can't see much up there.
 - 6 But I should give you my honest opinion.
 - 7 It changed my way of thinking.
 - 8 You'll get the most amazing views.
 - 9 That's the most amazing photo I've ever seen!
 - 10 It's just impossible to get there.
- Ⅲ-B 本文中の [] 内の日本語を英語で表現しなさい。

私は山に登るという経験をして、今まで気付かなかった自然の美しさが見えるようになったんですよ。