

福井大学

平成 29 年度入学者選抜学力検査問題

〈前期日程〉

外 国 語

英 語

(医学部 医学科)

注 意 事 項

- 1 試験開始の合図があるまでこの冊子を開いてはいけない。
- 2 問題はⅠからⅣまでである。
試験開始の合図のあとで問題冊子の頁数(1～9頁)を確認すること。
- 3 解答は必ず解答用紙の所定の欄に記入すること。
所定の欄以外に記入したものは無効である。
- 4 解答用紙は持ち帰ってはいけない。
- 5 問題冊子は持ち帰ってよい。

I 次の英文を読み、空所(1)から(15)を補うのに適切な1語を下の語群内の(a)から(o)より選び、記号で答えなさい。

It's been said often enough to become cliché*—it takes a village to raise a child. But how many of us have ever thought about why?

That question—why human mothers, unlike most among (1), rely on help to raise children—has long been a critical one for anthropologists*. A new study goes a long way toward an answer.

Co-authored by Erik Otárola-Castillo, a fellow* in the Department of Human Evolutionary Biology, and Karen Kramer, a professor of anthropology at the University of Utah, the findings suggest that evolutionary changes in birth interval and the time it takes for children to reach independence have combined to put significant pressure on time management, (2) mothers to recruit help from older children, extended families, and the larger community.

“We use the colloquialism* that ‘It takes a village’ quite frequently,” Otárola-Castillo said. “The question we wanted to ask was, ‘At what point does it take that?’ We don’t see this in chimpanzees, but we do in humans. At some point humans shared a (3) ancestor with chimpanzees—at some point our evolutionary lineages* were similar, but when did we change, and why?”

“Modern human mothers are very (4), because they’re unlike mothers of most other species,” Kramer added. “We feed our young after weaning*, and others help us to raise our children. But this wasn’t always the case. Deep in the past, mothers (5) received no help... so we have to ask why others cooperate with mothers to help them raise their children.”

For answers, anthropologists have typically found a window into the past through “traditional societies”—cultures in which there is little access to (6) education or birth control, and where people consume the foods they produce and have little or no access to market economies.

But in this case, Kramer said, those (7) simply don't work.

In the past 2 million years, a number of traits—including birth interval and the age at which children are independent—have evolved, (8) that human mothers, even ones living in traditional societies, are vastly different from early human ancestors.

“The thing is—all these things evolved in the past... so a ‘modern’ traditional population, with a modern life history of short birth intervals and a very long period of juvenility*—that is not an appropriate model to look at how cooperation may have evolved,” Kramer said.

“Human mothers have this dilemma—do I take care of my newborn, or do I go out and forage* for the food my 7-year-old needs? And this creates the (9) that prompt mothers to need help.”

To find an appropriate model, Otárola-Castillo and Kramer had to build one.

Using humans’ last common ancestor with apes and current traditional societies as their (10) and end points, the researchers developed a mathematical model to explore how (11) traits changed and what effect those changes had on mothers’ need for assistance.

“So we have these two points,” Otárola-Castillo said. “And the question we asked is, ‘What does that (12) look like?’ We simulated an economic problem that would have arisen over the course of human evolution. As mothers became more successful at (13) children—had shorter birth intervals and more surviving young—they also had more dependents than they could care for on their own. We wanted to know what combinations of traits required the help of other adults.”

What the study found was surprising. Most (14) about help for mothers point to other adults. The researchers found that it is the other children who are the most reliable helpers. “For many early life history changes, a mother and her (15) children are able to support each other,” Kramer said. “Only later in time, when we have more modern life histories—weaning is early, birth intervals are short and juveniles* are dependent until older ages—do mothers begin to need the help of other adults.”

—From Peter Reuell, “A Shift in Motherhood,” *Harvard Gazette*, July 28, 2015 一部改変.

Notes: cliché 決まり文句	anthropologist 人類学者	fellow 特別研究員
colloquialism 口語表現	lineage 系統	weaning 離乳
juvility 幼少	forage 探す	juvenile 年少者

語 群

- | | | | |
|-----------------|----------------|-----------------|-----------------|
| (a) beginning | (b) common | (c) comparisons | (d) constraints |
| (e) cooperating | (f) forcing | (g) formal | (h) hypotheses |
| (i) interesting | (j) likely | (k) mammals | (l) meaning |
| (m) producing | (n) transition | (o) various | |

II 次の英文を読んで下の質問に答えなさい。ただし、問3、5は英語で解答すること。

She was a large woman with a large purse. It had a long strap, and she carried it across her shoulder. It was about eleven o'clock at night, dark, and she was walking alone, when a boy ran up behind her and tried to snatch* her purse. The strap broke with the sudden single tug* the boy gave it from behind. But the boy's weight and the weight of the purse combined⁽¹⁾ caused him to lose his balance. Instead of taking off full blast as he had hoped, the boy fell on his back on the sidewalk. The woman simply turned around and kicked him. Then she reached down, picked the boy up.

After that the woman said, "Pick up my pocketbook*, boy, and give it here."

She still held him tightly. But she bent down enough to permit him to stoop* and pick up her purse. Then she said, "Now ain't* you ashamed of yourself?"

The boy said, "Yes'm*."

The woman said, "What did you want to do it for?"

The boy said, "(1)."

"If I turn you loose, will you run?" ask the woman.

⁽²⁾
"Yes'm," said the boy.

"Then I won't turn you loose," said the woman. She did not release him.

"Lady, I'm sorry," whispered the boy.

"Um-hum! Your face is dirty. I got a great mind to wash your face for you. Ain't you got nobody home to tell you to wash your face?"

"No'm*," said the boy.

"Then it will get washed this evening," said the woman, starting up the street, dragging the frightened boy behind her.

The woman said, "You ought to be my son. I would teach you right from wrong. Least I can do right now is to wash your face. Are you hungry?"

"No'm," said the boy. "I just want you to turn me loose."

"Was I bothering you when I turned that corner?" asked the woman.

"No'm."

"But (2)," said the woman. "If you think that that contact is not going to last a while, you got another thought coming. When I get through with you, sir, you are going to remember Mrs. Luella Bates Washington Jones."

Sweat popped out on the boy's face. Mrs. Jones stopped, jerked him around in front of her, and continued to drag him up the street. When she got to her door, she dragged the boy inside, down a hall, and into a large room at the rear of the house.

She said, "What is your name?"

"Roger," answered the boy.

"Then, Roger, you go to that sink and wash your face," she said. "Here's a clean towel."

"You gonna* take me to jail?" asked the boy.

"Not with that face, I would not take you nowhere," said the woman. "Here I am trying to get home to cook me a bite to eat, and you snatch my pocketbook! Maybe, you ain't been to your supper either. Have you?"

"There's nobody home at my house," said the boy.

"Then we'll eat," said the woman. "I believe you're hungry—or been hungry—to try to snatch my pocketbook!"

"I wanted a pair of blue suede shoes," said the boy.

"Well, you didn't have to snatch my pocketbook to get some suede shoes. You could have asked me." said the woman.

"Ma'm*?"

(3)

There was a very long pause. The woman was sitting on the day bed*. After a while she said, "I were young once and (3)."

There was another long pause. The boy's mouth opened. Then he frowned.

The woman said, "Um-hum! You thought I was going to say but, didn't you? You thought I was going to say, but I didn't snatch people's pocketbooks. Well, I wasn't going to say that." Pause. Silence. "I have done things, too, which I would not tell you, son—neither tell God, if He didn't already know. (4). Sit you down while I fix us something to eat."

Mrs. Jones got up and went behind a screen in the corner of the room. The woman did not watch the boy to see if he was going to run now, nor did she watch her purse which she left behind her on the day bed. But the boy took care to sit on the far side of the room where he thought she could easily see him out of the corner of her eye, if she wanted to. He did not trust the woman not to trust him. And he did not want to be mistrusted now.

"Do you need somebody to go to the store," asked the boy, "maybe to get some milk or something?"

"Don't believe I do," said the woman, "unless you just want sweet milk yourself. I was going to make cocoa out of this canned milk I got here."

She made the cocoa, and set the table. When they were finished eating she got up and said, "Now, here, take this ten dollars and buy yourself some blue suede shoes. And, next time, do not make the mistake of latching onto my pocketbook nor nobody else's—because shoes got by devilish ways will burn your feet. But from here on it, son, (5)."

—From Lanston Hughes, "Thank You, Ma'm" (1958), 一部改変.

Notes: snatch ひったくる

pocketbook ハンドバッグ

ain't “are not”あるいは“have not”の短縮形

No'm “No ma'am”の短縮形

Ma'm “madam”の短縮形

tug 強く引くこと

stoop かがむ

Yes'm “Yes ma'am”の短縮形

gonna “going to”の短縮形

day bed 長椅子

問 1 本文の空所(1)~(5)に入る最も適切なものを下のAからEよりそれぞれ1つずつ選び、記号で答えなさい。ただし、文頭に来る語も小文字で記している。

A. I didn't aim to

B. I hope you will behave yourself

C. everybody's got something in common

D. I wanted things I could not get

E. you put yourself in contact with me

問 2 下線部(1)を訳しなさい。

問 3 下線部(2)について、turn loose と同じ意味の1語を本文中から抜き出さなさい。

問 4 下線部(3)のように少年が反応した理由を説明しなさい。

問 5 下線部(4) that が指している部分を本文中から抜き出さなさい。

問 6 下線部(5)に示される少年の考えを裏付ける具体例を2つ挙げなさい。

(白 紙 頁)

III

次の英文を読んで下の質問に答えなさい。

Pam Mitchell knew the maggots* were working when her foot started bleeding. Four years ago, a small cut on Mitchell's left heel turned into a diabetes*-related infection two inches wide and down to the bone. Another wound developed in her right foot, owing to dry, cracked skin. Doctors tried everything—creams, antibiotics*—but nothing worked. "My doctor told me to give it up, see a psychologist, and have my foot amputated,*" she recalls.

Mitchell, now 52, had to make a decision soon because the powerful antibiotic that doctors prescribed for her infection was also wreaking havoc on her bones. Mitchell was preparing to undergo a dangerous bone marrow transplant* when a friend remembered watching a TV show about European doctors using maggots to treat wounds like Mitchell's. With nothing to lose, she tried it. Mitchell found a dermatologist* willing to perform the procedure, and soon had 600 live maggots crawling inside the wound on her left foot, 400 in her right.

When it came time to remove the maggots, Mitchell's doctor was more than a little repulsed. "He had never dealt with them before and he said it was like watching a Wes Craven* movie," Mitchell remembers. He was also impressed, because the maggot treatment seemed to be working. Over the course of 10 such treatments, wounds that months of expensive procedures could not mend began to heal. Today, Mitchell walks normally and both wounds are completely healed. She is now a member of a non-profit organization that promotes the medical use of maggots. "They didn't just save my feet, they saved my life," Mitchell said. "(anything, come, they, better, are, with, man, up, than, can) because I've tried everything."

A growing number of doctors are starting to agree. Maggots are useful because they help remove dead tissue and expose healthy tissue. Maggot therapy was popular in the early part of the last century but went out of vogue when antibiotic use became widespread. But maggots are now making a comeback, and they are increasingly being used to treat ulcers*, skin cancer, and burns. Research also suggests maggots may help decrease the risks of infections after surgery.

Maggot therapy is just one example of a medical approach called biotherapy—the use of living animals to aid in medical diagnosis or treatment. Leeches* are another example. Leeches are routinely used to drain blood from swollen faces and limbs after reconstructive surgery. They are especially useful when reattaching small parts that contain many blood vessels*, like ears, where blood clots* can easily form in veins that normally drain blood from tissues. If the clots are severe, the tissues can die—drowned in the body's own fluid—because they are deprived of oxygen and other vital substances.

Scientists are also looking at using leeches to treat other diseases. Studies led by Andreas Michalsen, a researcher at the University of Duisburg-Essen in Germany, suggests leech therapy may lessen pain. Maggots and leeches are so effective that the FDA* last year classified them as the first live medical devices. The treatments can be relatively inexpensive. 500-1,000 maggots last year cost \$70.

Michalsen said his patients are rarely rejected by the leeches and instead take a medical interest in the creatures. "They feel sympathy for the leeches," he said. Pam Mitchell expressed a similar sentiment about the maggots that saved her life. "When I first saw them, I didn't want anything to do with them." But they sort of grew on her. Maybe those that walk around household garbage are gross, she admits. "Otherwise, I just see them as being different."⁽⁶⁾

—From Ker Than, "Maggots and Leeches," *Livescience*, April 19, 2005, 一部改変。

Notes: maggot	うじ虫	diabetes	糖尿病
antibiotic	抗生物質	amputate	切断する
bone marrow transplant	骨髄移植	dermatologist	皮膚科医
Wes Craven	ホラー映画を得意とする映画監督	ulcer	潰瘍
leech	ヒル	blood vessel	血管
blood clot	血塊	FDA	食品医薬品局

問 1 下線部(1)(3)(5)の語(句)に最も近い意味を持つ語(句)を(A)~(D)から選び、記号で答えなさい。

- | | | |
|-----------------|----------------------|---------------------|
| (1) wreak havoc | (A) cause damage | (B) leave impact |
| | (C) provide benefits | (D) bring confusion |
| (3) repulsed | (A) disrespected | (B) disciplined |
| | (C) disgusted | (D) discharged |
| (5) vogue | (A) control | (B) fashion |
| | (C) hand | (D) date |

問 2 Pam Mitchell がうじ虫治療を選択した理由を述べなさい。

問 3 下線部(2)を和訳しなさい。

問 4 下線部(4)の括弧内の単語を並べ替えて、英文を完成させなさい。

問 5 うじ虫治療の利点を二つ挙げなさい。

問 6 ヒル治療が通常どのような場面に用いられるのかを記しなさい。

問 7 下線部(6)を otherwise の意味がよく分かるように和訳しなさい。

IV 2014年「国民生活基礎調査」によれば、日本の子供の約326万人、6人に1人が貧困状態であると報告されています。子供の貧困問題は、医療にどのような影響を及ぼすでしょうか。また、あなたはこの医療に及ぼす影響にどのような対策を提案しますか。この質問についてあなたの考えを90～100語の英文で述べなさい。なお、文末に使用した語数を記すこと。