

筑波大学

平成28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11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。)

Deep in the woods, two distinguished arthropods* — renowned in the animal kingdom for their ingenuity and technical accomplishments — have struck up a conversation. One is ANT, the other is SPIDER. Both being philosophically inclined, their concern is to understand the world and their place in it. On this particular occasion, it is ANT's turn to open the debate.

'We ants', he declares, 'are not isolated individuals. Our brains may be no bigger than pinheads, yet we can achieve great things. Our nests are monumental mounds, and our roads are highways through the forest, overrunning everything in their path. We can accomplish these feats because we collaborate. We live together in colonies, many thousand strong, sharing our food and work. In a word, we are the most *social* of insects.'

SPIDER, more solitary by nature, finds the idea of life in a colony hard to grasp. She admits that she would be more inclined to eat others of her kind than to work with them. Curious to know what it means to be social, she resolves to press ANT on the issue.⁽¹⁾ 'In the course of your activities', she remarks, 'you have to deal with all sorts of things. I have seen you dragging worms and bugs that you have killed for food to your nests, along with building materials like twigs, pine needles and leaves, often many times your body size. I have seen you "touching up" aphids* and licking the honeydew from their bodies. And I have seen you picking up and carrying around the larvae* of your own kind. Tell me, do you have social relations with these things, or only with mature members of the colony like yourself?'

'Now there, my dear SPIDER', replies ANT, 'you have touched on an issue that has been the source of some controversy in the ant world, and I have to confess that my own views on the matter are somewhat unorthodox.'⁽²⁾ To cut a long story short, there have up to now been two schools of thought. According

to one school, we should think of the colony as a functioning totality that is more than the sum of its parts — a sort of super-organism — within which the life of every individual is entirely given over to the greater good of the collectivity*. According to the other school, what we call “the colony” does not correspond to any real, concrete entity. We merely use the term as shorthand for what, in reality, is a vast number of individuals, each driven by those basic instincts with which it has been innately endowed. My own view, however, is that we should characterise the colony, in the first place, in terms not of its membership or composition but of what is actually going on there. Every colony is busy with activity. And if we follow the lines of activity, we find that they can be traced back neither to a single, collective super-organism nor to a plurality of individual organisms. Rather, to trace the lines of activity is to describe a vast network, in which any individual appears as but a particular node. Every ant in the colony is part of the action and carries it forward in its own way; it is, if you will, an *act-ant*.’

‘So if you want to assign responsibility for what is going on’, interjects SPIDER, ‘you could not lay it at the door of the individual or the collectivity. It is rather spread around the entire network.’

⁽³⁾ ANT waves his antennae in approval. ‘Exactly so. That’s why I say that the individual act-ant is not an agent. Rather, agency — that is, what makes things happen — is *distributed* throughout the network.’

‘That is all very well’, retorts SPIDER, ‘but you have still not answered my original question. You speak of the colony as a network of *act-ants*. But can the network also include *non-ants*? Can non-ants also have social lives?’

‘Absolutely’, ANT continues. ‘(𐄂) can belong to the network, whether ant or non-ant. It is on precisely this point that I take issue with my colleagues. They seem to think there is something about being an ant — some essential *ant-hood* — that sets them apart from other creatures, in a separate world of *anture* as distinct from the material world of *nature* in which the existence of all

other creatures is confined. Social relations, they claim, are not natural but
antural. But the world I inhabit comprises both act-ants and non-ants, including
(4) such things as pine needles, aphids and larvae. I insist that these things are not
just passive objects. I am bound up in relations with them, as I am with my
fellow ants. They, too, are part of the network. And they are caught up in it
just as flies, my dear SPIDER, are caught up in your web.'

'But there you are surely wrong', exclaims SPIDER. 'The lines of my web
(5) are not at all like those of your network. In your world there are just bits and
pieces of diverse kinds that are brought together or assembled so as to make
things happen. Every "relation" in the network, then, is a connection *between* one
thing and another. As such, the relation has no material presence. For the
materiality of the world, in your view, is fully comprehended in the things
connected. The lines of my web, to the contrary, are themselves spun from
materials from my own body, and are laid down as I move about. You could even
say that they are an extension of my very being as it trails into the environment.
They are the lines *along* which I live, and conduct my perception and action in
the world. For example, I know when a fly has landed in the web because I can
feel the vibrations in the lines through my legs, and it is along these same lines
that I run to retrieve it. But the lines of my web do not *connect* me to the fly.
Rather, they are already threaded before the fly arrives, and set up through their
material presence the conditions of entrapment under which such a connection
can potentially be established.'

(注)

arthropod : 節足動物

aphid : アリマキ, アブラムシ

larvae : larva (幼虫) の複数形

collectivity : group as a whole

(注意) 解答に ANT と SPIDER を用いる場合は, 英語の綴りのまま表記しなさい。
アルファベットの大きい文字は, 1文字1字分とします。

1. 下線部(1)の the issue は何を指していますか。その内容を表す英語を本文の中から抜き出さない。

2. ANT はコロニー(巣)に関する自説を下線部(2)のように特徴づけていますが、それは内容的にどのような点で unorthodox なのか、50 字以内の日本語で説明しなさい。

3. 下線部(3)の ANT の動作を人間の動作に言い換えて表現すると、次の()内にはどのような語が入りますか。英語 1 語で答えなさい。
ANT nods his () in approval.

4. 空所(ア)に入る最も適切な語を次の中から 1 つ選び、記号で答えなさい。
(A) Everything (B) Something (C) Anything (D) Each

5. 下線部(4)の内容を次のように言い換えると、()内にはどのような語が入りますか。本文から最も適切な 1 語を選び、英語で答えなさい。
They claim that social relations are possible with ants, but not with ().

6. 下線部(5)で SPIDER が指摘する ANT のネットワークとの違いはどこにあるか、50 字以内の日本語で説明しなさい。

7. 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) Cooperation enables ants to achieve things that would be impossible for a single ant.
- (B) SPIDER finds it hard to understand how to live in a colony, which is why she prefers to be alone rather than with others.
- (C) One of the two schools of thought mentioned by ANT claims that the group has priority over the individual.
- (D) ANT calls individual ants 'act-ants', and emphasises that they do what they do because of the network they are involved in.
- (E) ANT suspects that there is a special world of ants which makes them distinct from all other creatures.

(次ページに第Ⅱ問があります。)

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。)

One of the most important things that language does for us is help us make distinctions. When we call something edible, we distinguish it from — implicitly, automatically — all other things that are inedible. When we call something a fruit, we necessarily distinguish it from vegetables, meat, dairy, and so on. Even children intuitively understand the nature of words as restrictive. A child asking for a glass of water may complain, “I don’t want *bathroom* water, I want *kitchen* water.” The little munchkins* are making subtle discriminations of the physical world, and exercising their categorization systems.

Early humans organized their minds and thoughts around basic distinctions that we still make and find useful. One of the earliest distinctions made was between now and not-now; *these* things are happening in the moment, these other things happened in the past and are now in my memory. No other species makes this self-conscious distinction among past, present, and future. No other species lives with regret over past events, or makes deliberate plans for future ones. Of course many species respond to time by building nests, flying south, hibernating*, mating — but these are preprogrammed, instinctive behaviors and these actions are not the result of conscious decision, meditation, or planning.

Simultaneous with an understanding of *now* versus *before* is one of object permanence: Something may not be in my immediate view, but that does not mean it has ceased to exist. Human infants between four and nine months show object permanence, proving that this cognitive* operation is innate. Our brains represent objects that are here-and-now as the information comes in from our sensory receptors. For example, we see a deer and we know through our eyes that the deer is standing right before us. When the deer is gone, we can remember its image and represent it in our mind’s eye, or even represent it externally by drawing or painting or sculpting it.

This human capacity to distinguish the here-and-now from the here-and-not-now showed up at least 50,000 years ago in cave paintings. These constitute the first evidence of any species on earth being able to explicitly represent the distinction between what *is* here and what *was* here. In other words, those early cave-dwelling Picassos, through the very act of painting, were making a distinction about time and place and objects, an advanced cognitive operation we now call *mental representation*. And what they were demonstrating was an articulated sense of time: There was a deer *out there* (not here on the cave wall of course). He is not there now, but he was there before. Now and before are different; *here* (the cave wall) is merely representing *there* (the meadow in front of the cave). This prehistoric step in the organization of our minds (ㄨ) a great deal.

In making such distinctions, we are implicitly forming categories, something that is often overlooked. Category formation runs deep in the animal kingdom. Birds building a nest have an implicit category for materials that will create a good nest, including twigs, cotton, leaves, fabric, and mud, but not, say, nails, bits of wire, melon skins, or pieces of glass. The formation of categories in humans is guided by a cognitive principle of wanting to encode as much information as possible with the least possible effort. Categorization systems optimize the ease of conception and the importance of being able to communicate about those systems.

Categorization permeates* social life as well. Across the 6,000 languages known to be spoken on the planet today, every culture marks, through language, who is linked to whom as “family.” Kinship terms (such as *mother, father, daughter, son, sister, brother*, etc.) allow us to reduce an enormous set of possible relations into a more manageable, smaller set, a usable category. Kinship structure allows us to encode as (ㄨ) with the least cognitive effort.

(注)

munchkin: a child or small person

hibernate: to sleep through the winter

cognitive: connected with mental processes of understanding

permeate: to affect every part of something

1. 下線部(1)の preprogrammed と置き換えることのできる最も適切な1語を本文中から選び、英語で答えなさい。
2. 下線部(2)の one が表す内容に相当する2語からなる表現を本文中から選び、英語で答えなさい。
3. 下線部(3)の object permanence とはどのようなことか、35字以内の日本語で簡潔に説明しなさい。
4. 空所(ア)に入る最も適切な語を次の中から1つ選び、記号で答えなさい。
(A) painted (B) mattered (C) needed (D) differed
5. 下線部(4)の principle はどのような原則か、その内容を30字以内の日本語で説明しなさい。
6. 下線部(5)と同じ意味を表す2語からなる表現を本文中から選び、英語で答えなさい。
7. 空所(イ)に、次の語を最も適切な順に並べ替えて入れると、2番目にくる語は何になりますか。その語の記号で答えなさい。
(A) possible (B) information (C) as
(D) relevant (E) much

8. 次の中から、本文の内容と合っていないものを3つ選び、選択肢の順に記号で答えなさい。

- (A) Categorization systems help us form our ideas as efficiently as possible.
- (B) We can have a mental image of a deer by drawing, painting, or sculpting it.
- (C) Children understand that the use of words is restricted to making distinctions.
- (D) The process of forming categories implicitly can be hard to notice, but is even found in animals such as birds.
- (E) Saying something is edible means that it is not something we cannot eat.
- (F) Humans and other species differ as to whether they can respond to time by their behaviors.
- (G) We can distinguish members of the same family fairly easily by using kinship terms.
- (H) Cave paintings indicate that early humans did make a clear distinction between present and past.

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)と(2)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。

It is important to understand why the seemingly simple task of saying “No” can be somewhat complicated in Japan. The underlying reason is (1)(イ how □ related to ハ acutely tuned into ニ Japanese people ホ their social status ヘ are) relative to whomever they are speaking with. Clearly stating “No” to someone of lower status is acceptable, but there is an eagerness to avoid conflict among people of equal status and certainly a strong desire to (2)(イ someone □ being ハ from ニ prevent ホ put into a situation ヘ of higher status) where they could lose face. Thus, by directly denying a request from your boss, a colleague at work or a customer, you could cause the person who made the request to become embarrassed.

(1) 3番目 _____ 5番目 _____

(2) 3番目 _____ 5番目 _____

- [B] 下の英文の質問に対して、90語程度の英語で答えなさい。(句読点は数える必要はありません。)

Eating habits have changed in the last 30 years and people are becoming more careful about the food they eat every day. For example, some people stop eating sweets, some people cook more at home, and some people eat a vegetables-only diet. What do you think is the best diet for a long and healthy life? Please give two reasons to support your opinion.