

第1問 次の文章を読み、後の設問に答えなさい。

Why would an animal want to cooperate with a human? The behaviorist would say that animals cooperate when, through reinforcement, they learn it is in their interest to cooperate. This is true as far as it goes, but I don't think it goes far enough, if we remember that there are rewards and there are rewards. Certainly with humans, the intangible reinforcement that comes from self-respect, dignity, and accomplishment can be far more motivating than material rewards. Is it also possible that it is important for an animal to feel that it has some purpose, that for social animals that purpose involves meaningful interactions with others, and that the self-respect gained from cooperation might be more important than getting a cracker?

Zookeepers recognize this. Those who work with animals have been doing their best to try to understand the intangible as well as material needs of different animals in order to relieve the boredom and purposelessness of captivity. Through enrichment programs, a cheetah might still feel the thrill of the hunt by chasing after make-believe prey in a specially constructed race at the San Diego Zoo. In Scotland, tigers must run up a twenty-foot-high pole to get to food at certain times. As Karen Pryor points out, zoological workfare like this makes for happier tigers. It allows them some sense of the hunt, which has to be part of the enjoyment of a meal. Zoo enrichment programs give back to animals some element of control, and with it some measure of dignity. Much of the mischief, tricks, and escape attempts perpetrated by captive animals seems to be motivated by a desire to assert independence and control. "True enrichment," says Rob Shumaker, "is not about balls and poles, but about what we all want, which is control over our surroundings."

This brings us back to cooperation. For the most part, animals do not accept the terms of captivity passively, and cooperation is another way an animal can assert some control and find some meaning in the terms of its confinement.

Indeed, according to Gail Laule, Orky the killer whale turned the tables and made cooperation a reward for his trainers when they treated him with respect. This is true for many proud animals. Chris Wilgenkamp, the elephant keeper at the Bronx Zoo, says that the elephants love interactive games with the keepers because the pachyderms control the interactions.

Enriching the animals' lives also makes them more cooperative during veterinary examinations. By turning an examination into a fun game with rewards, Wilgenkamp and his fellow keepers have taught some of the young tigers at the Bronx Zoo to come running up to the wire mesh and show zoo doctors their paws and bellies. Sometimes cooperation extends to the point of reminding zookeepers how to do their job. Loraine Hershonik, a senior lion keeper at the Bronx Zoo, says that on one occasion an old female lion named Kathrin noticed that a gate to an outer cage was nearly unlocked. "She roared," says Loraine. "It was almost as though she was reminding me: 'This is not the routine.'"

A number of captive animals actively mimic the keepers' daily routines. Ivan, for instance, will clean his cage if you give him a towel. When I first arrived at Tanjan Puting, the orangutan rehabilitation/research station run by Birute Galdikas in Borneo, I passed a young female orangutan furiously scrubbing a piece of clothing in imitation of the local girls who were washing clothes on the deck. And when keepers at the Topeka Zoo found a male orangutan named Jonathan outside the holding area after one of his many escape attempts, the big male was mopping the floor with a sponge, causing one of the watching keepers to suggest only half facetiously that they let him finish before getting him back into his cage.

Cooperation between captive animal and human can continue even when the animal has the option of escape. Of course, this has always been true of domestic animals, where such cooperation is to be expected. Dogs, cats, horses, and other domestic animals have been bred to be appealing, useful, and

cooperative with humans. More remarkable are cooperative ventures between humans and animals who have no such domestic history.

One of the most astonishing examples of purely voluntary cooperation between animal and human in the wild comes from Santa Catarina, the southernmost state in Brazil. Karen Pryor visited the area in the late 1980s to see with her own eyes an entirely voluntary joint fishing effort by dolphins and humans that, according to town records, started in the middle of the nineteenth century. “I’d heard sketchy reports about the cooperative fishing,” she says, “but when I went to Laguna and saw it for myself, my jaw just dropped.”

In what she describes as a highly ritualized encounter passed on by generations of dolphins as well as generations of humans, the fishermen will line up in the shallow, murky waters in a bay near the town of Laguna. Up to ten dolphins will station themselves twenty feet or so farther out to sea. When the dolphins spot a school of mullet, they will dive and turn underwater and then reappear on the surface, swimming towards the fishermen. Just before they get within range of the nets, the dolphins will abruptly stop and create a surging surface wave that carries the mullet the last few feet towards the now-braced fishermen, who cast their nets and haul in the panicked fish.

Pryor stresses that the abrupt stop and sideways roll to create a surge is not a part of any normal breathing routine, but seems to have been invented to achieve the effect of herding the fish towards the net. She also notes that there are no signals passed or other communication between the fishermen and the dolphins, and that the fishermen don’t reward the dolphins with mullet. She hypothesizes that the dolphins take advantage of the confusion created by the nets to grab all the fish they need. Perhaps most extraordinary is that each net-casting session is initiated by the dolphins. The system yields a lot of fish, which wholly explains why both species have an interest in continuing this extraordinary example of cross-species cooperation.

[設 問]

- (1) 下線部を和訳しなさい。

- (2) This text discusses the behavior of both wild animals and animals in captivity. What are the common features of both of these cases in your opinion? Answer in English (80-120 words). As much as possible, avoid copying from the given text.

- (3) The first sentence of this text asks “Why would an animal want to cooperate with a human?” Does the text as a whole coherently answer this question or not? Justify your answer. Write in English (80-120 words). As much as possible, avoid copying from the given text.

第2問 次の文章を読み、後の設問に答えなさい。

As essayist and trader Nassim Taleb resolved to do something about the stubborn extra pounds he'd been carrying, he contemplated taking up various sports. However, joggers seemed scrawny and unhappy, and body-builders looked broad and stupid, and cyclists? Oh, so bottom-heavy! Swimmers, though, appealed to him with their well-built streamlined bodies. He decided to sign up at his local swimming pool and to train hard twice a week. A short while later, he realized that he had succumbed to an illusion. Professional swimmers don't have perfect bodies because they train extensively. Rather, they are good swimmers because of their physiques. How their bodies are designed is a factor for selection and not the result of their activities. Similarly, female models advertise cosmetics and, thus, many female consumers believe that these products make you beautiful. But it is not the cosmetics that make these women model-like. Quite simply, the models are born attractive, and only for this reason are they candidates for cosmetics advertising. As with the swimmers' bodies, beauty is a factor for selection and not the result.

Whenever we confuse selection factors with results, we fall prey to what Taleb calls the swimmer's body illusion. Without this illusion, half of advertising campaigns would not work. But this bias has to do with more than just the pursuit of chiseled cheekbones and chests. For example, Harvard has the reputation of being a top university. Many highly successful people have studied there. Does this mean that Harvard is a good school? We don't know. Perhaps the school is terrible, and it simply recruits the brightest students around. I experienced this phenomenon at the University of St. Gallen in Switzerland. It is said to be one of the top ten business schools in Europe, but the lessons I received (albeit twenty-five years ago) were mediocre. Nevertheless, many of its graduates were successful. The reason behind this is unknown — perhaps it was

due to the climate in the narrow valley or even the cafeteria food. Most probable, however, is the rigorous selection.

All over the world, MBA schools lure candidates with statistics regarding future income. This simple calculation is supposed to show that the horrendously high tuition fees pay for themselves over a short period of time. Many prospective students fall for this approach. I am not implying that the schools doctor the statistics, but still their statements must not be swallowed whole. Why? Because those who pursue an MBA are different from those who do not. The income gap between the two groups stems from a multitude of reasons that have nothing to do with the MBA degree itself. Once again we see the swimmer's body illusion at work: the factor for selection confused with the result. So, if you are considering further study, do it for reasons other than a bigger paycheck.

When I ask happy people about the secret of their contentment, I often hear answers like “You have to see the glass half full rather than half empty.” It is as if these individuals do not realize that they were born happy and now tend to see the positive in everything. They do not realize that cheerfulness — according to many studies, such as those conducted by Harvard's Dan Gilbert — is largely a personality trait that remains constant throughout life. Or, as social scientists David Lykken and Auke Tellegen starkly suggest, “trying to be happier is as futile as trying to be taller.” Thus, the swimmer's body illusion is also a self-illusion. When these optimists write self-help books, the illusion can become treacherous. That's why it's important to give a wide berth to tips and advice from self-help authors. For billions of people, these pieces of advice are unlikely to help. But because the unhappy don't write self-help books about their failures, this fact remains hidden.

In conclusion: Be wary when you are encouraged to strive for certain things — be it muscles of steel, immaculate looks, a higher income, a long life, a

particular demeanor, or happiness. You might fall prey to the swimmer's body illusion. Before you decide to take the plunge, look in the mirror — and be honest about what you see.

注：MBA: Master of Business Administration 専門職大学院であるビジネススクールで取得する学位のこと。

[設 問]

- (1) 下線部を和訳しなさい。
- (2) Summarize “the swimmer's body illusion” as discussed in the text. Answer in English (80-120 words). As much as possible, avoid copying from the given text.
- (3) Give reasons why someone might disagree with the author's opinion regarding “the swimmer's body illusion” in the text. Answer in English (80-120 words). As much as possible, avoid copying from the given text.