

大阪医科大学

平成 25 年度 入学 試験 問題 (前期)

英 語

注 意

1. 合図があるまで表紙をあけないこと。
2. 受験票は机に出しておくこと。

I 下線部を和訳せよ。

Overwhelmed by more information than we can possibly hold in our heads, we're increasingly handing off the job of remembering to search engines and smart phones. Google* is even reportedly working on eyeglasses that could one day recognize faces and supply details about whoever you're looking at. ⁽¹⁾ But new research shows that outsourcing our memory — and expecting that information will be continually and instantaneously available — is changing our cognitive habits.

Research conducted by Betsy Sparrow, an assistant professor of psychology at Columbia University, has identified three new realities about how we process information in the Internet age. First, her experiments showed that when we don't know the answer to a question, we now think about where we can find the nearest Web connection instead of the subject of the question itself. For example, the query "Are there any countries with only one color in their flag?" prompted study participants to think not about flags but about computers.

A second revelation: when we expect to be able to find information again later on, we don't remember it as well as when we think it might become unavailable. Sparrow's subjects were asked to type facts into a computer — for example, "The space shuttle *Columbia* disintegrated during re-entry over Texas in February 2003." Half were told that their work would be saved; the rest were told that their words would be erased. Those who believed that the computer would store the information recalled details less well on their own. Sparrow compares their situation to one we all experience in the hyperconnected real world: "Since search engines are continually available to us, we may often be in a state of not feeling we need to encode the information internally. When we need it, we will look it up." Sound familiar?

The researchers' final observation: the expectation that we'll be able to locate information down the line leads us to form a memory not of the fact itself but of where we'll be able to find it. ⁽²⁾ "We are learning what the computer 'knows' and when we should attend to where we have stored information in our computer-based memories," Sparrow and her colleagues concluded in their report. "We are becoming symbiotic with our computer tools, growing into interconnected systems."

Before you grow nervous about turning into a cyborg, however, you should know that this new symbiosis with our digital devices is really just a variant of a much more familiar phenomenon, what psychologists call transactive** memory. This is the unspoken arrangement by which groups of people give out memory tasks to each individual, with information to be shared when needed. ⁽³⁾ In a marriage, one spouse might remember the kids' after-school appointments while the other keeps track of the recycling-pickup schedule. In a workplace team, one member may be the designated number cruncher*** while a colleague is charged with remembering client preferences. The way we delegate to our computers is simply an extension of this principle — an instance of transactive memory carried out on a very grand scale.

But this handoff comes with a downside. Skills like critical thinking and analysis must develop in the context of facts: we need something to think and reason about, after all. ⁽⁴⁾ And these facts can't be Googled as we go; they need to be stored in the original hard drive, our long-term memory. Especially in the case of children, "factual knowledge must precede skill," says Daniel Willingham, a professor of psychology at the University of Virginia — meaning that the days of drilling the multiplication table and memorizing the names of the Presidents aren't over quite yet. Adults, too, need to recruit a supply of stored knowledge in order to situate and evaluate new information they encounter. You can't Google context.

(出典：Time, March 12 2012. 一部変更あり)

*Google: a major corporation which provides Internet-related products and services.

**transactive: relating to exchanges or interactions between people.

***number cruncher: people whose jobs involve dealing with numbers or mathematical calculations.

II 下線部を和訳せよ。

Right from an early age, even before they can talk, people find that helping others is inherently rewarding, and they learn to be sensitive to who is helpful and who is not. Regions of the brain activated by helping are the same as those activated when people process other pleasurable rewards.

Anyone who assumes that babies are just little egoists who enter the world needing to be socialized so that they can learn to care about others is overlooking other tendencies as species-typical. Humans are born predisposed to care how they relate to others. A growing body of research is persuading neuroscientists that Baruch Spinoza's* seventeenth-century proposal better captures the full range of tensions humans grow up with. "The endeavor to live in a shared, peaceful agreement with others is an extension of the endeavor to preserve oneself." Emerging evidence is drawing psychologists and economists alike to conclude that "our brains are wired to cooperate with others" as well as to reward or punish others for mutual cooperation.

Perhaps not surprisingly, helpful urges are activated most readily when people deal with each other face-to-face. Specialized regions of the human brain are given over to interpreting other people's vocalizations and facial expressions. Right from the first days of life, every healthy human being is avidly monitoring those nearby, learning to recognize, interpret, and even imitate their expressions. An innate capacity for empathizing with others becomes apparent within the first six months. By early adulthood most of us will have become experts at reading other people's intentions. We are so attuned to the inner thoughts and feelings of those around us that even professionals trained not to respond emotionally to the suffering of others find it difficult not to be moved. Therapists face particular challenges in this respect. Empathy, the stock-in-trade of psychotherapists because it really does produce better results, turns out to be their worst nightmare as well. People who deal day-in-and-day-out with the troubles of others face such occupational hazards as "vicarious** traumatization" and "compassion fatigue," or face the threat of "catching" a client's depression.

New discoveries by evolutionarily minded psychologists, economists, and neuroscientists are propelling the cooperative side of human nature to center stage. New findings about how irrational, how emotional, how caring, and even how selfless human decisions can be are transforming disciplines long grounded in the premise that the world is a competitive place where to be a rational actor means being a selfish one. Researchers from diverse fields are converging*** on the realization: while humans can indeed be very selfish, in terms of empathic responses to others and our eagerness to help and share with them, humans are also quite unusual, notably different from other apes.

(出典 : Sarah Blaffer Hrdy, *Mothers and Others*. Harvard University Press, 2009. 一部変更あり)

*Baruch Spinoza: A Dutch philosopher (1632-77).

**vicarious: experienced in the imagination through the feelings or actions of another person.

***converge: meet or join at a particular point.

III 下線部を英訳せよ。

今日、地球の多くの場所において、河川や湖水の多くが、過度の使用や汚染によって危険なほど枯渇してきている。ちょうど石油紛争が20世紀の歴史にとって主要な問題の一つであったように、真水の危機が、世界の文明における新たな転換点を形成し始めている。21世紀に生きる我々は、この惑星の限られた資源を、いかにして維持し利用し続けていくかという緊急の課題に取り組まなければならない。