

[I] Michael S. Gazzaniga, *Human: The Science Behind What Makes Your Brain Unique* より抜粋した下の英文を読み、問に答えなさい。なお、本文中の*のついた語は注として本文の後にまとめてあります。

While the observed social group size of chimpanzees is 55, the social group size that Dunbar calculated from the neocortex* size of humans is 150. How can that be, when we now live in huge cities, often with millions of people? However, think about it. Most of those people you never even have cause to interact with. Remember: our ancestors were hunter-gatherers, and people didn't start to settle in one place (ア) agriculture was developed about ten thousand years ago. Today the typical size of hunter-gatherer clans, related groups that gather together once a year for traditional ceremonies, is 150. This is also the size of traditional horticultural* societies and modern-day Christmas card lists in personal address books.

It turns out that 150 to 200 is the number of people who can be controlled without an organizational (イ). It is the basic number used in military units where personal loyalties and man-to-man contact keep order. Dunbar states that it is the upper limit of the size of modern business organizations that can be run informally. It is the maximum number of people an individual can keep track of, whom he can have a social relationship with and would be willing to help with a favor.

Gossiping has a bad reputation, but researchers who study gossip have not only found it to be universal, (a) they have found that it is beneficial, that it is the way we learn to live in society. Dunbar thinks gossip is the human equivalent of social grooming in other primates* and remember: the size of the grooming group correlates with relative brain size. Physical grooming takes up much of a primate's time. The primates that spend the most time grooming are chimps, who do it up to 20 percent of the time. 【A : 1. At some point during the evolution of the hominids*, as groups became larger, an individual would need to groom more and more other individuals in order to maintain relationships in the larger group. 2. Grooming time would cut into the time that was needed to forage for food. This is when, Dunbar argues, language began to develop. 3. If language began to substitute for grooming, one could "groom," that is to say, gossip, while doing other things, such as foraging, traveling, and eating. 4. This could be how talking with your mouth full began.】

However, language can be a double-edged sword. The advantages of language are that you can groom several people at once (more efficient) and you can get and give information over a wider network. However, the disadvantage is that you are vulnerable to cheaters. With physical grooming, an individual invests high-quality personal time. That cannot be faked. With language, a new dimension has been added: liars. One can tell stories displaced in time, so their veracity* is difficult to assess, and while grooming is done among a group, where it is visible and verifiable to all, gossiping can be done in private, and its veracity is not challenged. But language can also help you

out with this problem. (b) You may be warned by a friend about a previously bad experience with a certain individual. As a social group gets larger and more dispersed, cheaters or free riders become harder to keep track of. Gossip may have evolved partly as a way to control the slackers.

Various studies have found that, on the average, humans spend 80 percent of their waking time in the company of others. We average six to twelve hours per day in conversation, mostly one-on-one with (ウ) individuals. What has been found out shouldn't come as any surprise to you. Nicholas Emler, a social psychologist at the London School of Economics, has studied the content of conversations and learned that 80 to 90 percent are about specific named and (ウ) individuals, which is to say, small talk. Other studies show that two-thirds of the content of conversations are self-disclosure.

Gossip serves many purposes in society: It fosters relationships between gossip partners, satisfies the need to belong and be accepted by a unique group, elicits information, builds reputations (both good and bad), maintains and reinforces social norms, and allows individuals to evaluate themselves through comparison with others. It may enhance status in a group, or it may just entertain. Gossip allows people to express their opinions, ask advice, and express approval and disapproval.

Jonathan Haidt, a psychologist at the University of Virginia who studies happiness, writes that "Gossip is a policeman and a teacher. Without it, there would be chaos and ignorance." It is not just women who gossip, although men like to call it "exchanging information" or "networking." The only time when men spend less time gossiping than women do is when women are present. Then more lofty subjects are discussed for about 15 to 20 percent of the time. The only difference between male and female gossip is that men spend two-thirds of the time talking about themselves ("and when I reeled that sucker in, I swear it weighed twenty-five pounds!"), whereas women spend only one-third of the time talking about themselves, and are more interested in others ("and the last time I saw her, I swear she had gained twenty-five pounds!").

Beyond the content of conversations, Dunbar also discovered that conversation groups are not infinitely large but are usually self-limiting to about four individuals. Think about the last party you went to. 【B : 1. Chimps have to groom one-on-one, and their maximum social group size is 55. 2. He says it may be coincidence, but he suggests a correlation with chimp grooming. 3. If you take a conversation group of four persons, only one is talking and the other three are listening, or in chimp lingo, are being groomed. 4. People drift in and out of conversation groups, but once you go over four people, they do tend to break up into two conversations.】 If we can groom three at a time, as indicated by conversation group size, then if you multiply our three grooming partners by 55, you get (エ) — close to our social group size that Dunbar calculated from the neocortex size of humans.

* 注 neocortex ; 大脳新皮質 horticultural ; 農耕の primate ; 霊長類 hominid ; ヒト veracity ; 真正性

問1 (ア), (イ), (ウ)に入る最も適切な語を下の選択肢から選び, その番号をそれぞれ (1), (2), (3) にマークしなさい。(ウ)は本文中の二カ所にあります。

(ア) 1. after 2. by 3. notwithstanding 4. until 5. when

(イ) 1. cluster 2. disorder 3. hierarchy 4. man 5. qualification

(ウ) 1. excluded 2. hated 3. known 4. supplied

問2 文意が通るように【A】の中の文を並べなさい。最初の文の番号を (4) に, 2番目にくる文の番号を (5) に, 3番目にくる文の番号を (6) に, 4番目にくる文の番号を (7) にマークしなさい。

問3 下線部 (a), (b) を日本語に訳しなさい。答は解答用紙に記しなさい。

問4 男性と女性の gossip の, 本文中で紹介されている違いを 30 字以内の日本語で説明しなさい。答は解答用紙に記しなさい。

問5 文意が通るように【B】の中の文を並べなさい。最初の文の番号を (8) に, 2番目にくる文の番号を (9) に, 3番目にくる文の番号を (10) に, 4番目にくる文の番号を (11) にマークしなさい。

問6 (エ)に入る数字を解答用紙に記しなさい。

〔Ⅱ〕 William C. Cockerham, *Medical Sociology* (8th Edition) より抜粋した下の英文を読み, 問に答えなさい。なお, 本文中の * のついた語は注として本文の後にまとめてあります。

Attempts to understand the relationship between social behavior and health have their origin in history. Dubos suggested that primitive humans were closer to the animals in that they, too, relied upon their instincts to stay healthy. Yet some primitive humans recognized a (オ) relationship between doing certain things and alleviating* symptoms of a disease or improving the condition of a wound. Since there was so much that primitive humans did not understand about the functioning of the body, magic became an integral component of the beliefs about the causes and cures of health disorders. Actually, an uncritical acceptance of magic and the supernatural pervaded practically every aspect of primitive life. So it is not surprising that early humans thought that illness was caused by evil spirits. Primitive medicines made from vegetables or animals were invariably used in

combination with some form of ritual to expel the harmful spirit from a diseased body. During the Neolithic age, some 4,000 to 5,000 years ago, people living in what is today the Eastern Mediterranean and North Africa are known to have even engaged in a surgical procedure called trepanation or trephining, which consists of a hole being bored in the skull in order to liberate the evil spirit supposedly contained in a person's head. The finding by anthropologists* of more than one hole in some skulls and the lack of signs of osteomyelitis (erosion of bone tissue) suggest that the operation was not always fatal. Some estimates indicate that the mortality rate from trepanation was low, an amazing accomplishment considering the difficulty of the procedure and the crude conditions under which it must have been performed.

【C : 1. Little is known of Hippocrates, who lived around 400 B.C., not even whether he actually authored the collection of books that bears his name. 2. Nevertheless, the writings attributed to him have provided a number of principles underlying modern medical practice. 3. One of his most famous contributions, the Hippocratic Oath, is the foundation of contemporary medical ethics. 4. One of the earliest attempts in the Western world to formulate principles of health care based upon rational thought and the rejection of supernatural phenomena is found in the work of the Greek physician Hippocrates.】 Among other things, it requires the physician to swear that he or she will help the sick, refrain from intentional wrongdoing or harm, and keep confidential all matters pertaining to the doctor-patient relationship.

Hippocrates also argued that medical knowledge should be derived from an understanding of the natural sciences and the logic of (才) relationships. In his classic treatise, *On Airs, Waters, and Places*, Hippocrates pointed out that human well-being is influenced by the totality of environmental factors: living habits or lifestyle, climate, topography of the land, and the quality of air, water, and food. Interestingly enough, concerns about our health and the quality of air, water, and places are still very much with us today.

In their intellectual orientation toward disease, Hippocrates and the ancient Greeks held views that were more in line (力) contemporary thinking about health than was found in the Middle Ages and the Renaissance.

Modern medicine traces its birth to Western Europe in the late eighteenth century. In analyzing the development of French medicine at this time, social theorist Michel Foucault noted the emergence of two distinct trends in medical practice — that he called "medicine of the species" and "medicine of social spaces." Medicine of the species pertained to the strong emphasis in Western medicine upon classifying diseases, diagnosing and treating patients, and finding cures. The human body became an object of study and observation in order that physiological processes could be demystified and brought under medical control. Physicians perfected their so-called clinical gaze, allowing them to observe and perceive bodily functions and dysfunctions within a standardized

frame of reference. Clinics were established both to treat patients and train doctors, (カ) the clinic providing the optimal setting for physicians to exercise authority and control over their patients.

The medicine of social spaces was concerned not with curing diseases, but preventing them. Prevention required greater government involvement in regulating the conduct of daily life — especially public hygiene. Physicians served as advisers in the enactment* of laws and regulations specifying standards for food, water, and the disposal of wastes. The health of the human body thus became a subject of regulation by medical doctors and civil authorities as social norms for healthy behavior became more widely established. In such a context, Foucault found that scientific concepts of disease had replaced notions that sickness had metaphysical (religious, magical, superstitious) origins. Disease was no longer considered an entity outside of the existing boundaries of knowledge, but an object to be studied, confronted scientifically, and controlled.

*注 alleviate; 緩和する anthropologist; 人類学者 enactment; 制定

問1 (オ), (カ)に入る最も適切な句と語とをそれぞれ下の選択肢から選び, その番号をそれぞれ(12), (13)にマークしなさい。(オ), (カ)とも, 本文中の二カ所にあります。

(オ) 1. cause and effect 2. doctor and patient 3. patron and client 4. trial and error

(カ) 1. against 2. along 3. for 4. with

問2 文意が通るように【C】の中の文を並べなさい。最初の文の番号を(14)に, 2番目にくる文の番号を(15)に, 3番目にくる文の番号を(16)に, 4番目にくる文の番号を(17)にマークしなさい。

問3 頭蓋骨に穴を開ける手術の, 本文中で紹介されている目的を15字以内の日本語で解答用紙に記しなさい。

問4 ヒポクラテスの誓い (the Hippocratic Oath) の, 本文中で紹介されている内容を40字以内の日本語で解答用紙に記しなさい。

問5 medicine of social spaces の, 本文中で紹介されている内容を10字以内の日本語で説明しなさい。答は解答用紙に記しなさい。

〔Ⅲ〕 A の (18) から (26) までの単語の意味の一つとしてふさわしいものを B の説明の中から
選び、その番号を (18) から (26) までにそれぞれマークしなさい。

A:

- (18) ambulance (19) malpractice (20) paramedic
(21) pharmacist (22) practitioner (23) pro-choicer
(24) radiology (25) transplant (26) triage

B:

1. an advocate of the legal right to obtain an abortion
2. a vehicle equipped for transporting the injured or sick
3. a person who works in a professional medical or legal business
4. implantation of living or nonliving tissue or bone into another part of the body
5. a person whose job is to prepare and sell the drugs and medicines that a doctor prescribes for patients
6. the principle or practice of sorting casualties in battle or disaster or other patients into categories of priority for treatment
7. a branch of medicine concerned with the use of radiant energy (as X-rays) or radioactive material in the diagnosis and treatment of disease
8. a specially trained medical technician licensed to provide a wide range of emergency services (as defibrillation and the intravenous administration of drugs) before or during transportation to a hospital
9. a dereliction of professional duty or a failure to exercise an ordinary degree of professional skill or learning by one (as a physician) rendering professional services which results in injury, loss, or damage

平成24(2012)年度 薬学部 問題訂正

教科・科目	誤	→	正
英語	p.5 18行目 to thedoctor-patient relationship	→	p.5 18行目 to the doctor-patient relationship (the と doctor-patient の間にスペースを挿入する)