

英語 A (英文解釈)

トナミ教材開発

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まえがき ~本書の特徴と使い方~

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コラム

《単語をどう覚えるか》

《いかに和訳するか》

《構文をどう把握するか》

単語さくいん

構文さくいん

タイトル・出題校一覧

[001] (太陽エネルギーの重要性)

The sun is an important 'new' source of energy. It is not so expensive as oil or nuclear energy. Furthermore, it does not cause pollution, and it is not as dangerous as nuclear power. Many people think that solar energy will be the answer to our future energy problems.

[002] (人類の起源)

Until recently scientists thought that the first humans developed in Africa. According to this theory, these early humans then gradually moved to other parts of the world. Now there is new evidence for a different theory about the beginnings of humans. In 1990 scientists in China found the bones of two human heads from about one million years ago. This may mean that humans did not all develop in Africa.

[003] (自由の女神に込められた思い)

The Statue of Liberty in New York was sent from France to the United States in 1886. It symbolizes the noble ideal of democracy and liberty, as well as the friendship between the American and French people. One of many interesting facts about this statue is that the French people, not the French Government, proposed sending this gift to the United States.

[004] (賢者ソクラテス)

Socrates was said to be the wisest man of his time. This reputation surprised him. His own opinion of himself was that he knew very little. He had no answers to the supreme questions concerning human life. But he was also sure that no one else knew the answers to such questions, and this confidence explained his reputation as a wise man. Although he was ignorant, he alone knew that he was ignorant. Other men were foolish enough to think they had all the answers.

[005] (天然の薬)

Most people do not realize that 80 percent of our medicines are made with chemicals from plants, and that some medicines are made from animals. Our ancestors made medicines from natural products. However, people in developed countries have lost much knowledge of natural medicines.

[006] (マルサスの予言)

In 1798 an economist named Thomas Malthus warned that the world population was growing faster than the food supply and that this would lead to widespread starvation and suffering. Fifty years later, a million people starved to death in Ireland owing to a potato crop failure.

[007] (フランスにおける英語の普及)

For a long time there has been a feeling in France that the English language has too much influence in the world. The French government disapproves of the use of English words where a French alternative exists. But it may prove impossible to control the spread of the English language because many English words like “weekend”, “jogging”, and “pub” are now part of everyday French.

[008] (迷信とは)

Superstition is a traditional belief that a certain action or event can cause or foretell an apparently unrelated event. For example, some people believe that finding a four-leaf clover means good luck. Others believe that if a black cat crosses their path, they will have bad luck.

[009] (色が体に及ぼす効果)

Some scientists say color can affect our actions and feelings. Experiments show, for example, that when people look at warm colors: red, orange, or yellow, brain activity and blood pressure increase. Breathing becomes faster. The color blue has the opposite effect. It seems to slow down the activity of the body.

[010] (衣服と人格との関係)

The French have a saying, “Style is the man.” In English we say, “Clothes make the man.” Both sayings mean that clothes and appearance show a person’s character. Some people believe that if a person dresses carelessly, then he or she is not a reliable person. If a person wears neat clothes and looks very neat, then he or she is a dependable person. They even think that the kinds of clothes and colors people wear also show character. A person who wears loud colors is a noisy person. A person who wears plain colors is a quiet person.

[011] (母乳の味)

Most doctors now agree that mother’s milk is better for babies than artificial milk. However, artificial milk has one advantage. It always tastes the same to the baby. Mother’s milk, on the other hand, can change flavor. Certain foods may give the milk a strange taste. For example, if the mother eats cabbage or garlic, her baby may refuse her milk. Doctors have also discovered that a baby may also refuse its mother’s milk after she has exercised a lot. After exercise, in fact, the milk may have an unpleasant, sour taste.

[012] (右利きと左利き)

The ancient Romans believed that the right side of the body was the good side, while the left side held evil spirits. Their word for “right”, *dexter*, gave us *dexterous*, which means “skillful”, whereas their word for “left”, *sinister*, means “evil” or “wicked”. This may have created negative attitudes toward left-handedness. But today, left-handedness is becoming more and more acceptable in society, and is even considered advantageous in some sports.

Because of this, left-handed people do not have to feel “left out” any more.

[013] (ワインの効用)

A recent study by Harvard University has concluded that red wine is the only alcohol that is good for your health. Researchers previously believed that one drink a day of any kind of alcoholic beverage helped people live longer. Recent evidence has shown that only red wine increases the adult life span significantly.

[014] (人間の行為と動物の行為の違い)

Man differs from other animals in many ways. One of these is that he is willing to engage in activities that are unpleasant in themselves but are means to ends that he desires. Animals do things that, from the point of view of the biologist, seem to be labour for a purpose: birds build nests, beavers build dams. But they do these things from instinct, because they have an impulse to do them, and not because they perceive that they are useful.

[015] (なぜ年を取るのか?)

Why do we grow old? This is a question that people have asked since the beginning of history. Now biologists are looking for scientific answers to this question. They think that aging is part of our genetic problem. From the evolutionary point of view this makes sense. A person who can no longer have children is no longer useful to the species, so he or she grows old and dies.

[016] (地球が青いのは)

The bright blue color of our planet that we see in photos taken from space comes from the blue of its water. Water covers more than 70 percent of the earth's surface. The continents we live on are really huge islands set in one vast sea that flows around the globe.

[017] (水と植物)

Water makes up about 70% of the weight of the most plants and animals, including man. Sea and fresh water plants clearly have no difficulty in getting water. Land plants absorb it through their roots, but the soil may become dry if there is little rain, and under these conditions their growth will stop. Much of the water received returns directly to the atmosphere in the process of evaporation. In the tropics the evaporation rate is so high that even in areas of heavy rainfall there is not always enough water to keep the growth of some plants.

[018] (自動車を発明した国は)

Many people believe that because the automobile is in such general use in America it was invented in the United States. That is not true. The gasoline motor-car that we know began in France and Germany. What Americans did invent was a method of manufacturing cars in such numbers that in the end they led the world in production, producing some

seventy-five percent of all the world's cars.

[019] (天然資源への意識)

Americans have become more and more aware that we must take better care of the world in which we live. For many years we were very wasteful of our natural resources, thinking that there would be enough land, water, and air forever. We used them very carelessly, without thinking about how we would replace them when they became too scarce to find, or when they became too costly to replace. Recently, however, we have realized that we must be very careful to protect what we already have; we should stop using them up so that we will always have enough natural resources for our basic needs.

[020] (労使の思惑)

Profit, the difference between how much production costs and how much the consumer pays, is the goal of business. Companies see wages paid to workers as a major part of the expense in production costs. To a business, it is important to keep the cost of labor down. However, the wage that is an expense to the company is an income to the worker. Workers want to keep their wages high so that they can buy what they need and want for themselves and their families. Employers and employees are constantly trying to improve their own positions.

第2章 itの用法を見分ける

[021] (ビタミンCの栄養効果)

Vitamins are very important for good health. One vitamin that you need to have regularly is vitamin C. Certain fruits and vegetables are rich in this vitamin. Some examples are oranges, lemons, and grapefruits, as well as red peppers and tomatoes. Vitamin C can be destroyed by heat, so it is a good idea to eat lots of uncooked fruits and vegetables.

[022] (言葉の境界線)

There are between three and five thousand languages spoken in the world at present. It is difficult to tell exactly how many languages there are due to the fact that there is no way of distinguishing between dialects and languages for linguistic reasons alone. We all speak a dialect and we all have accents. Moreover, linguistic borders only rarely agree with political or geographical borders: if you start walking through France from Calais and go all the way to the southern tip of Italy, you will never find two neighboring villages where the inhabitants do not understand one another, yet at some "point" you will have gone from French to Italian. In fact, it is more accurate to say that you will have gone from France to Italy, since the border is national and political, not linguistic.

[023] (アメリカの個人主義)

Americans have traditionally thought of independence and individualism as important factors in their lives. Parents try to instill these values in their children from an early age.

In the United States, for example, it is common for parents to put a newborn in a separate room when the child is only a few weeks old. Part of the reason is economic: that is, many houses are large enough to offer each child a separate room. However, Americans have other reasons for separating their children physically soon after birth. Parents like to preserve their privacy. By having their own rooms children will also be able to have privacy when they get older. In addition, the children will also learn to be responsible for their own living space.

[024] (イルカと会話する)

For many years scientists believed that the most intelligent animals after man were chimpanzees. Now, however, there is evidence that dolphins may be even more intelligent than chimpanzees. Although a dolphin lives in the sea, it is not a fish. It is a mammal. Therefore in many ways they are like human beings. Scientists have discovered that dolphins have a simple language. They are able to talk to one another. It may be possible for man to learn how to talk to dolphins. But this will not be easy because dolphins cannot hear the kind of sounds man can make. If man wants to talk to dolphins, therefore, he will have to invent a third language which both he and the dolphins can understand.

[025] (発明の母)

Despite the old saying “necessity is the mother of invention,” it takes more than necessity for something to be invented. The need for rapid communications over great distances, for example, existed long before the invention of radio, the telegraph, and the telephone. We still do not have a cure for the common cold or for many other illnesses. An inventor cannot create something simply by recognizing that people have a need for it. The successful inventor will also have some knowledge of how his invention can be made to work, of the best technologies available at the time. Most of all, though, he needs creative insight. It is the ability to arrive at the crucial combination of facts and ideas that will blend his knowledge and technical capacity into what we call an invention.

[026] (予期していることと予期していないこと)

If we are expectantly waiting for the telephone to ring, we quickly recognize the bell when it does ring. But if we are not expecting a call, it may take us some moments to identify that strange ringing noise. Again, we quickly recognize our next-door neighbor when we meet him near our house. But when we encounter the same man unexpectedly in a distant town, we take longer to recognize his identity. These examples illustrate a general rule: an expected event is more easily recognized than an unexpected event.

[027] (カルチャーショック)

When people talk about culture shock, the word culture means the customs or social institutions of a certain group of people. The people of a country have their own culture. Therefore, if you visit a foreign country, you will face a culture more or less different from your own and sometimes find it difficult to adjust yourself to it. For instance, if you are

used to sleeping in Japanese style bedding, futon, you may have difficulty sleeping in a bed in the United States. A good way to avoid or get over culture shock is to try to accept and enjoy differences instead of regarding them as problems.

[028] (日本人とジョーク)

Japanese are often said to have little sense of humor. It is true that statesmen, government officials, and financial leaders rarely make jokes on formal occasions, but this is simply because they consider it impolite to provoke laughter on such occasions.

[029] (身ぶりの表現力)

Many linguists believe that human beings communicated with gestures long before languages were ever formed. It is estimated that we can produce, through facial and body movement, close to 700,000 different gestures an unusually large number when compared to the eight or ten thousand words in our everyday vocabulary.

[030] (アメリカの大学教育)

It is commonly said that in America it is easy to get into college but it is difficult to stay in. The belief that every American is entitled to an education, and the fact that numerous state-supported colleges exist, mean that large numbers of high school graduates will go to college. In these schools admission standards are relatively low. However, academic standards are relatively high.

[031] (インターネットが世界を変える)

Some people say that the Internet is a turning point in human history. Indeed it is certain that nothing like the Internet has ever existed before. With the Internet you can send and receive up-to-date information as never before. If the Internet continues to grow, the business world will change. It is already possible to do shopping from home. On the computer screen, people can buy things, pay bills and check to see how much money is left in their bank accounts. The way people work will be changed, as well. Instead of going to the office in crowded trains every day, people may stay at home and send their report to their companies with their computers. As a result, they can spend more time with their families. This could have a positive effect on the entire social structure of many countries.

[032] (原始的な言語など無い)

It is a commonly-held belief in Australia that the Aborigines have no real language, just a few words and no grammar. Even many educated Australians think that the Aboriginal languages are primitive. That is not true, however. The Aborigines, like all human groups, had highly developed languages. Indeed, no native language is primitive. All express the complex experiences of their speakers. All have large vocabularies and sets of rules for putting words together in sentences.

[033] (動物の地震予知能力)

Some people say it is possible to predict earthquakes by using animals. It seems that some animals are much more sensitive to the movements of the earth than our most sophisticated earthquake predicting equipment. On February 3, 1975, farmers and zoo-keepers in a certain Chinese city reported that their animals were behaving very strangely. Chickens were flying up into the trees. Fish were jumping up out of the water. Pandas were doing a strange dance. The city officials decided to make everyone leave the area. The next day a massive earthquake destroyed half the city. The animals had saved thousands of lives.

[034] (右利きの歴史)

It may be that we are right-handed because primitive man believed his heart was on his left side. According to one theory, man learned very early that his heart was his most vital organ and one to be protected at all times. Since early man felt his heartbeat under his left breast, he assumed that the heart was located there. So, when he fought, he instinctively kept his left side back and his right side forward. This made it necessary for him to hold his weapon with his right hand, keeping his left hand in a position to protect the heart. According to the theory, this eventually led to right-hand dominance.

[035] (余生の暮らし方)

Newcomers to the United States find it surprising that old people here tend to live apart from their family or children. The fact that parents live apart from their children does not mean that old people are not given good care. The separation occurs as a result of the parents' wish not to become a burden on their children. On the other hand, the children, by allowing old people to live in homes of their own, provide their aged parents with an opportunity to enjoy their remaining years with freedom and independence, even if at the expense of the children.

[036] (生産物と輸出物)

Many people today think it is very wrong of the Government to keep us all short of nice things at home while the beautiful cars and textiles and other high grade goods are sent abroad. They think that exports should consist only of the surplus goods that we don't want to use ourselves. Yet they do not think it wrong that the mechanic who makes the Rolls-Royce car cannot afford to possess such a car himself.

[037] (イギリス人のスポーツに対する信念)

Considering the amounts of time and effort that the British devote to sports, it is surprising that they are not better at them. Britain's performance in the Olympic Games is usually very bad. The reason for this may be that although the British enjoy sports, they enjoy them for their own sakes, as enjoyable activities, rather than as a demonstration of national ability. There is a strong belief among the British that it is not "winning" that

matters: it is playing the game.

[038] (改善されない男女の役割意識)

It is a fact that the role of the vast majority of women in society has not significantly changed over the years. They are still expected to take charge of the domestic side of life when they get married. That is, they are expected to shop, cook, clean the house and look after the children. It is still the man who is the main salary earner and the woman who is the housewife.

[039] (発明に秘められた特徴)

One characteristic of inventions is that many were made by essentially practical men and women mechanics, artisans, farmers, technicians who were trying to meet an immediate need and were not too much concerned with the theory behind their devices and machines. Success often came from hard work in a shop rather than from application of a broad theory. In fact, a brilliant theory does not always get immediate practical application. For example, Hero of Alexandria, a first-century mathematician and engineer, conceived the idea of a steam engine, but he did not put this inspiration to practical use. It was not until the 18th century that steam engines were developed to meet specific needs such as pumping water from coal mines.

[040] (どうして少子化が進まないのか)

Statistics show that rapid population growth creates problems for developing countries. So why don't people have fewer children? Statistics from the developed countries suggest that it is only when people's living standards begin to rise that birth rates begin to fall. There are good reasons for this. Poor countries cannot afford social services and old age pensions, and people's incomes are so low that they have nothing to spare for savings. As a result, people look to their children to provide them with security in their old age. And even while they are still quite young, children can do a lot of useful jobs on a small farm. So poor people in a developing country will need to see clear signs of much better conditions ahead before they will think of having smaller families.

第3章 what、which、whether等の用法を見分ける

[041] (注意力)

No one lacks the power of concentration. A high school boy who is unable to concentrate on his history lesson can give his complete attention to the comics or the sports pages of the newspaper. When he is reading for pleasure he becomes oblivious to his surroundings and may not be aware that his name is being called. Mrs. Smith may find it impossible to concentrate on the book she is reading because she thinks she ought to read it, but she has no difficulty in concentrating on a letter from her friend. We concentrate, without effort, on what interests us.

[042] (歴史的な芸術と科学)

Art and science are treated differently by succeeding generations. Museums exhibit both inventions and works of art. The inventions are always outdated, but the art is ageless. What is beautiful or great in art remains beautiful or great. Egyptian sculpture is still impressive five thousand years later and equals any contemporary expression in stone. The science of the Egyptians, while marvelous in geometry, astronomy and even crude medicine (they operated on the brain and eye), is of no appreciable importance today. There is no progress in art, and there can be no comparison of the art of different ages.

[043] (年輪に刻まれたもの)

By carefully looking at the rings of a tree, one can discover exactly how old the tree is, what the general climatic and environmental conditions have been in that area and what chemicals, natural and man-made, the tree has been exposed to. When loggers cut down forests, in a sense they expose a record of the geological history of the area.

[044] (富の不均衡)

In our society many people often think they do not have enough money and complain about what they have. We regularly hear our friends saying that they require more money, but actually they probably have enough money for food and clothes and they only want the extra money for unnecessary things. In an advanced country like Japan it is difficult to believe in the existence of millions of people whose daily amount of food is below the level needed to keep a person healthy. This is because some countries cannot produce enough food for their people, and other countries produce more than they need. This is a world problem, and for many years governments have been trying to solve this problem. The solution is difficult because often the countries without enough food do not have money to pay high prices for the food they need.

[045] (死の認識)

It is generally accepted that death is the end of life. What we call “animals”, it seems, are not aware of life itself. And they do not know about the existence of death, either. It is only human beings that “discover” death, are troubled about it, think about it, and even publish magazines featuring special articles on death. The “discovery” of death may have been the greatest achievement ever made by our species. Death is intrinsically one of the attributes of living organisms. To speak of the “death” of a society or a civilization is only a metaphor. Yet even in the case of living organisms, death does not necessarily mean the mere end of life.

[046] (体内の時計)

Every living thing has what scientists call a biological clock that controls behavior. The biological clock tells plants when to form flowers and when the flowers should open. It tells insects when to leave the protective cocoon and fly away. And it tells animals and human

beings when to eat, sleep and wake. It controls our body temperatures, the release of some hormones and even dreams. Events outside the plant and animal affect the actions of some biological clocks. Scientists recently found, for example, that a tiny animal called the Siberian hamster changes the color of its fur because of the number of hours of daylight. In the short days of winter, its fur becomes white. The fur becomes gray-brown in color in the longer hours of daylight in summer.

[047] (現代の食)

Our expectations of what we take into our bodies have increased and changed. We are no longer satisfied to eat whatever foods are in season. We expect, and give ourselves, an almost infinite variety, defying nature and geography in our pursuit of more and better food. We not only demand quality and variety, but in addition we want healthy food, well cooked and pleasing to the eye.

[048] (人間の言語の特徴)

Perhaps the most important characteristics of human speech is that it makes it possible for us to communicate about anything, even if we must create new words or sentences to do so. We have names for all the things that are familiar to us, and if we find something new, we can make up a new name for it. In fact, hundreds of new words are introduced into our language every year. Similarly, we can make up whatever sentences we need in order to say what we mean. We are not limited to those sentences with which we are already familiar. This ability to generate new sentences grows out of the process by which each human child learns to speak during the first few years of its life.

[049] (イギリスの天気の効果)

The uncertainty about the weather has had a definite effect upon the Englishman's character; it tends to make him cautious, for example. The foreigner may laugh when he sees the Englishman setting forth on a brilliantly sunny morning wearing a raincoat and carrying an umbrella, but he may well regret his laughter later in the day! The English weather has also helped to make the Englishman adaptable. It has been said that one of the reasons why the English colonized so much of the world was that, whatever the weather conditions they met abroad, they had already experienced something like them at home!

[050] (食べ物の選別)

All cultures go to considerable lengths to obtain preferred foods, and often ignore valuable food sources close at hand. The English do not eat horse and dog; Mohammedans refuse pork; Jews have a whole list of forbidden foods; Americans despise offal; Hindus forbid beef — and so on. People will not just eat anything, whatever the circumstances might be.

[051] (温室効果)

A greenhouse is a building made of glass which is used for keeping plants warm when the outside temperature is low. In a similar way, there are several gases in the atmosphere known as “greenhouse gases” and the way in which they trap heat in the atmosphere is called the “greenhouse effect.” Without greenhouse gases Earth would be thirty degrees colder and human life would not exist. In other words, the greenhouse effect is a natural process which is to some extent beneficial to us.

[052] (酸素をとりいれる器官)

Most land animals, including human beings, breathe with lungs. Our lungs take in air and put oxygen into our blood stream. Fish cannot breathe air directly, but have organs called “gills” which can take air out of the water. Their gills only work in water, however. If a fish is brought onto the land, it will die from a lack of oxygen even though there is oxygen all around.

[053] (知覚と言語)

Our perception of the world depends to a great extent on the language we speak. In other words, we cannot perceive things we have not named. Each language is like a pair of sunglasses through which we “see” the world. A classic example of the relationship between language and perception is the word “snow.” In the English language, there is only one word to describe all of the possible kinds of snow. In Eskimo languages, however, there are as many as thirty-two different words for snow. In contrast, cultures that rarely experience cold weather and snow may have only one word to express several concepts that are differentiated in English.

[054] (代表民主主義)

Most governments in the world today claim to be democratic. A democracy is a form of government in which all people effectively participate. Because it is generally impractical for all the people to take part in their government directly, their participation is usually through representatives whom they choose in free elections. Hence, the people rule themselves indirectly, through their representatives, and the government is often called a representative democracy.

[055] (貨幣の定義)

Money is usually defined as a medium of exchange. That is, you receive money in exchange for the work you do. In turn, you give it to people in exchange for things you want, such as food, clothing, or other consumer goods. Many different things have been used as money. In some places, for example, seashells have served as a medium of exchange. However, gold, silver, and copper have been the most popular kinds of money throughout the ages. Coins are still made of silver and copper in most places today. However most of the world’s money is made of paper, which has almost no value in itself. The government prints one, five, ten,

or some other number on millions of pieces of special paper. People think that the pieces of paper are worth the amount printed on them, because they trust the government.

[056] (アパルトヘイト)

Apartheid was the political system that South Africa had from 1948 to 1990. Apartheid laws classified people into three major racial groups White; Bantu, or Black Africans; and Coloured, or people of mixed race. Later Asians, mostly Indians and Pakistanis, were added as a fourth category. The laws restricted where members of each group could live, what jobs they could hold, and what type of education they could receive. They also prohibited most social contact between the races, created separate public facilities for each group, and did not allow nonwhites to be represented in the national parliament. People who openly opposed apartheid were considered communists and the government passed strict security laws, which in effect turned South Africa into a police state.

[057] (話し合いにおいて重要なもの)

In discussion, whether you can talk eloquently and easily is of less significance than whether you have something worthwhile to contribute. Each member of the group should express his ideas as well as he is able. If the others see merit in the ideas, they will help shape these into final form by the aid of the combined abilities of the entire group.

[058] (有罪か無罪か)

It is said that in former times the Chinese used this method for determining whether an accused person was innocent or guilty: they put some uncooked rice in his mouth, left it there for a while, then had him spit it out. If the rice was dry, he was judged guilty. The theory was this: normally, a person's mouth is always wet. When he is afraid, his mouth becomes dry. The innocent man, they believed, would have no reason to fear the test and his mouth would not be dry, while the guilty man, afraid of being discovered, would have a dry mouth.

[059] (茶の効用)

Tea is more than just a refreshing drink. It is an incredibly healthy drink. This is true for any kind of tea, but especially for green tea. Tea, whether green or black, comes from the same plant. In the process of making black tea, however, some important substances are destroyed. Therefore, although scientists have found that even black tea is good for one's health, it is green tea that is most commonly employed as medicine.

[060] (リーダーの役割)

All groups, whether made up of politicians, soldiers, workers, or students, have leaders. A leader is the symbol of the standards and ideals of the group and represents the group to outside people. Within a group, the leader makes work schedules, lists duties, gives orders, makes decisions, and settles disputes. A leader has a great deal of influence on the other members of the group: therefore, several skills and characteristics are necessary to be a

good leader.

第4章 to + 動詞の用法を見分ける

[061] (食料の保存)

In the past, having enough food to survive in the winter was a very serious problem, so Japanese and Europeans thought of ways to preserve food. One way Europeans learned to preserve milk was to make it into butter and cheese. People now eat butter and cheese because they enjoy the taste, but the original reason for making butter and cheese was to have food in the winter. In old Japan, people learned to preserve food by using salt together with vinegar, ginger, and wasabi. These efforts by Europeans and Japanese to preserve food were part of the beginnings of our food cultures.

[062] (資本主義と競争)

The aim of the capitalist is to make a profit. But this does not mean that he can charge very high prices or sell bad goods. If he does, he will probably lose business to others who sell better goods or have lower prices. Competition forces the capitalist to sell the best possible goods at the lowest possible price. Competition is an important feature of capitalism. The profits made by the individual capitalist in free competition benefit the economy of the whole country. As the capitalist makes profits he can afford to expand his business and put more people to work.

[063] (世界地図の誤解)

What happens when you ask someone to draw a map of the world? A common error is the tendency to make Europe too large and Africa too small. People from everywhere tend to draw the world this way, including the Africans! One reason may be the influence of old maps, which used a technique that makes areas nearer the North Pole seem extra large.

[064] (アルツハイマー病)

Alzheimer's disease damages a person's ability to recall memories, both distant and as recent as a few hours before. Although there is not yet a cure for the illness, there may be hope for a cure with a protein called nerve growth factor. The protein is produced by nerve cells in the same region of the brain where Alzheimer's occurs.

[065] (アメリカ人のフロンティア精神)

The practical nature of American thinking has been, like so many other things, influenced by the American frontier experience. On the frontier there were few schools and few books. People made their living through physical labor. A person with a practical skill or trade was more highly valued than a person with a formal education. When people did sit down and think, it was to solve immediate, concrete problems, such as building a house or planting a crop. There was little time for abstract, theoretical thought.

[066] (常食と健康)

The type of food which you eat most of the time is called your diet. Your diet should provide all the things that your body needs for growth and health. Sometimes people change their diet for health reasons. This may be to lose weight, to control a disease, or to prepare for sporting events. A healthy diet is one that provides nourishing substances in the right amounts. A diet that includes plenty of cereals, fruit and vegetables provides a good balance of nourishing substances. A diet that is mostly made up of chips, sweets and salty snacks is much less healthy, because it is unbalanced. It contains too much fat, sugar and salt, and not enough protein and vitamins.

[067] (大気汚染の原因)

Cars are the most important cause of air pollution in many cities. This is especially true in cities, such as Los Angeles, where most people go to work by car. In order to reduce pollution, the city must reduce the number of cars on the road. This is only possible, however, if people have another way to get to work. For this reason, many city governments are working to improve the public transportation system.

[068] (環境汚染)

We must recognize that our own survival is tied to the fate of the earth. Indeed, the environment has become an issue not only of worldwide interest but also of national security: it directly affects all nations and all peoples. To secure our planet, we need to deal with species loss, deforestation, acid rain, air and water pollution, and other threats leading to global warming and ozone destruction. In every major area of the economy, we need new technologies. Developed countries must balance the needs of growth with the need for environmental management. Developing countries, where the problems of reconciling economic growth with environmental protection far exceed those of the developed world, face even greater challenges.

[069] (梅の花)

Did you know that plum blossoms were once more important in Japan than cherry blossoms? Back in the Nara period, during the 8th century, viewing plum blossoms was a favorite spring pastime for the upper classes. This is easy to realize when you read the old Japanese classics. In fact, when the ancient people said the word "blossom" they probably were referring to the plum, whereas today it probably would mean cherry. Proof of the plum blossoms' popularity can be found in the *Manyoshu* which is a collection of poems put together around A.D.750. In that book there are far more poems written about the plum blossoms than the cherry. The fruit of the plum tree has also long been considered good medicine for the stomach. Sick people in Japan usually will eat a salted plum called "*umeboshi*" along with "*okayu*" and this is supposed to help the appetite.

[070] (子どもの性別の決定)

It may be possible in the future to choose the sex of your child. Researchers in France believe that they found a way to influence the sex of the unborn child. They say that it depends on what the woman eats in the period before she gets pregnant. However, other researchers are doubtful about this theory. They say that the process is really much more complex. According to these critics, the new theory is complex to understand.

[071] (イギリスの地理的な位置)

The most important single fact about England is that it is detached from the continent of Europe. Its geographical position has influenced not only its history but also the character and traditions of its people. England has, throughout modern history, enjoyed unique advantages. It has been large enough to contain and gradually assimilate a number of different races, but small enough to be effectively governed by a single ruler, remote enough from the mainland of Europe to avoid being automatically involved in its political and social conflicts, but close enough to participate in its cultural and economic life. It has enjoyed a degree of security and detachment that has enabled it to pursue its own ways.

[072] (日本語が国際言語になる可能性)

The replacement of English by Japanese as the world's chief international language is almost unimaginable despite Japan's great economic power today. One can hope and expect that much larger numbers of foreigners will come to master Japanese in the future, but there are just too many hurdles standing in the way of its becoming a major international language to expect this to happen in the foreseeable future.

[073] (日本の国際化)

It should be obvious to anyone that Japan is unquestionably a very international country. No one could argue that it must make its patterns of trade more international or that it needs to make its culture or its life style less Japanese and more Western. If Japan were to lose its Japanese identity, this would be a great loss not only for the country but for the whole world, and no one should wish to see it disappear like some endangered species of animal. That certainly cannot be the meaning of the internationalization that people are talking about. They clearly have something quite different in mind.

[074] (人口増加)

One of the most difficult problems in poor countries is that of extremely rapid population growth. If the economy grows only as fast as the population, the average well-being of the people will not improve. However, this situation prevails in many parts of the world. Equally important, rapid growth produces serious problems physical, social, and economic. It is important to understand that the major population problem confronting the poor countries today is not so much the actual number of people as the rapid growth rates. Clearly, if development is to take place, birth rates must be reduced.

[075] (環境保全と政府の役割)

A lot of people are trying to help the environment in their daily lives. For example, they only buy goods made with recycled paper. They save their newspapers and bottles, and take them to a paper bank or a bottle bank. They refuse to buy aerosols which damage the atmosphere. But the public, and environmental pressure groups especially, want the government to take stronger action, because it is the government which has the most power. What they want is for the government to provide an excellent public transport system, especially trains, so that people will not want to drive. They want all the governments of the world to come to immediate agreements on questions of pollution of the seas and the air.

[076] (なぜ?)

Asking “why?” is a normal part of a child’s development. Though “why?” questions can be trouble to a busy mother, it is better to encourage children. The best way to handle “why?” questions is to keep the answer as simple as possible. That is because young children are not yet capable of understanding a complex answer. A curious child may be confused by a long answer and may lose interest in asking questions in the future. The most important thing is for parents to show they hear every question and give a simple answer. This will certainly encourage young children to keep asking “why?”

[077] (高齢化と社会)

As the percentage of elderly people in the total population becomes higher, the nation’s medical expenses for such people rapidly increase. There is an urgent need for developed countries to promote various social welfare programs, such as old age pensions, medical insurance, and an increase in the number of home helpers and nurses. It is important for each of us to think seriously about what to do when young, so that we may spend our old age in relative ease and comfort.

[078] (テレビの魔力)

Almost everybody knows that there are better, more worthwhile things for a family to do than watch television. And yet, if viewing statistics are to be believed, most families spend most of their family time together in front of the TV screen. Some social critics believe that television has come to dominate family life because today’s parents are too selfish to take the time and effort that reading aloud or playing games or even just talking to each other would require. But this strict view doesn’t take into consideration the extraordinary power of television. In reality, many parents crave a richer family life and are eager to work at achieving this goal. The trouble is that their children seem to prefer television to all those fine family activities.

[079] (音楽の鑑賞力)

Music has been called the “universal language” and today, more than ever, music is truly universal. For music to become the important part of our culture and civilization, more is necessary than the creative genius of the composers and the artistic talents of the professional musicians who perform their works. The highest development of music depends also on the intelligence and appreciation of the vast majority of people who are the listeners.

[080] (科学知識の実証)

A theory developed by a scientist cannot be accepted as part of scientific knowledge until it has been verified by the studies and experiments of other researchers. In fact, for any knowledge to be truly scientific, it must be repeatedly tested experimentally and found to be true. This characteristic of science sets it apart from other branches of knowledge. For example, the humanities, which include religion, philosophy, and the arts, deal with ideas about human nature and the meaning of life. Such ideas cannot be scientifically proved. There is no test that tells whether a philosophical system is “right.”

第5章 動詞 + ed、動詞 + ing の用法を見分ける

[081] (公害に関する矛盾)

Nearly everyone would like to have pollution reduced. Unfortunately, most of the pollution that now threatens the health of our planet comes from products that many people want and need. For example, automobiles provide the convenience of personal transportation, but they create a large percentage of the world’s air pollution.

[082] (交通法の歴史)

Law regulating the direction of traffic began hundreds of years before the automobile was even invented. England was the first country to establish any kind of law regarding its roads. In 1555, a law was passed, and people had to keep the roads in front of their houses repaired at their own expense. Because of this unpopular law, the people made the roads very narrow, creating problems for horseback riders and carriages.

[083] (しつけと教育)

It is generally accepted that the experiences of the child in his first years largely determine his character and later personality. Every experience teaches the child something and the effects are cumulative. ‘Upbringing’ is normally used to refer to the treatment and training of the child within the home. This is closely related to the treatment and training of the child in school, which is usually distinguished by the term ‘education.’ In a society such as ours, both parents and teachers are responsible for the opportunities provided for the development of the child, so that upbringing and education are interdependent.

[084] (発明と発見)

An invention differs from a discovery, but they are closely related. A discovery occurs when something that exists in nature is observed or recognized for the first time. An invention is the creation of something that never existed before. For example, people discovered fire. But they invented the match to start a fire. An invention is thus a combination of knowledge and skill applied to various discoveries and observations.

[085] (ノーベル賞の歴史)

Alfred Bernhard Nobel was a Swedish chemist, inventor, and industrialist. His most important invention, the explosive dynamite, earned a fortune for its inventor. It also provided the financial basis for the establishment of a trust fund from which annual prizes would be awarded to those who, each year, conferred “the greatest benefit on mankind.” This prize is called the Nobel Prize. The prizes, first given in 1901, are administered by the Nobel Foundation in Stockholm. The awards designated in Nobel’s will were for physics, chemistry, physiology or medicine, literature and peace. In 1969 a prize for economics was added.

[086] (ヨーロッパ文明の起源)

Many people look upon Greece as the place where European civilization began. Thousands of years ago, while most of Europe was a wild place, the Greeks had splendid cities with beautiful buildings. The Greeks invented political philosophy in Europe, and a lot of words connected with government come from the Greek. For example, the word “democracy” comes from the Greek word *demos* meaning people.

[087] (砂糖の特徴)

Sugar was for a long time a luxury. During the nineteenth century, however, manufacturers developed methods of producing it in enormous quantities and it has since become one of the basic articles of food. It has the advantages of being comparatively cheap, easily digested, rich in energy and useful for flavoring. Its major faults are that it lacks every nourishing quality except that of giving energy, and that, because of its attracting flavor, it tends to replace other much more valuable foods in the diet.

[088] (間違いをおかす理由)

Since we are human, we make mistakes. There are many reasons why we make errors. It may be due to the fact that we have been forced to make a decision before we have had time to consider the facts. It may be because we are careless, or because we have acquired the bad habit of not thinking, or numerous other reasons.

[089] (英語の様々な表現)

There are various levels of formality in English. Take, for instance, the three words *children*, *offspring*, and *kids*. *Children* is a ‘common core’ term; *offspring* is rather formal

and used of animals as well as human beings; *kids* is informal and familiar. It is safest, when in doubt, to use the 'common core' term; thus *children* is the word you would want to use most often. But part of 'knowing English' is knowing in what circumstances it would be possible to use *offspring* or *kids* instead of *children*.

[090] (生物学)

Everyone knows what biology is because we have all studied it in high school. Literally, it means the study of life. But if you were asked what biotechnology is, what answer would you give? Biotechnology is taking the knowledge that we have from our study of biology and adapting it to our own needs and to those of the earth around us. It means not merely understanding the forces of life, but using those same forces to improve our own surroundings. Such a statement sounds very vague. More specifically, biotechnology is applying industrial know-how to biological functions in order to achieve certain goals on a large scale. For example, we can use our knowledge to take vegetables and grow larger ones which have more nutrition and better flavor. In other words, we can improve on nature.

[091] (蛇と悪との関係)

Many people have a fear of snakes. In the Bible, the snake is the creature that persuades Eve, the first woman, to take a bite of an apple that God has forbidden Adam and Eve to eat, and so is the cause of them having to leave the Garden of Eden. Because of the evil action, in Christianity, the snake has a strong association with evil.

[092] (言語の習得)

In all cultures men learn to speak at roughly the same age, starting in the first or second year of life, mastering most of the grammar of their language by the age of six, but increasing their vocabulary all through their lives. This means that we learn to speak long before we are able consciously to reflect on language. Speaking comes naturally to human beings, like breathing or walking. It is not necessary to give children formal instruction in how to speak; it is sufficient for them to grow up in a normal human environment. In this respect speaking differs from other intellectual activities such as mathematics, or practical activities such as ploughing or driving an automobile. We acquire these abilities by conscious efforts, while the complicated mechanism of language develops within us without our being in the least aware of it.

[093] (現在を取るか未来を取るか)

Making a choice always means making a sacrifice — giving up one thing for another. You cannot be in two places at the same time. You cannot spend the same money twice. You must therefore decide which of two things you value more and make your choice. It pays to think of as many factors as you can before you act. A hasty decision frequently leads to regret and the loss of time, money, and opportunity. Very often we need to choose between the pleasure of the present moment and the real possibility of greater satisfaction in the

future. The pressures of satisfying the present need are great, indeed, for the 'future' seems very far away, and the good times of right now are upon us.

[094] (食品開発)

Developing new food products is a major business in the United States. Food companies spend millions of dollars each year creating new kinds of things to eat. But the investments pay off only if these products succeed in the marketplace. In just a year, as many as eight thousand new kinds of foods are introduced to American consumers. And this is only twenty percent of all the new types of foods invented.

[095] (運動の効果)

Regular and moderate exercise is essential for health. It helps to maintain the smooth working of all the organs of the body. It strengthens the muscles and improves the circulation of blood, thus increasing the transport of oxygen around the body. In exercise the heart beats faster and more strongly, the lungs expand, blood moves more readily through the veins, and oxygen is carried more readily to the cells, giving alertness to the mind, and power and endurance to the body.

[096] (情報伝達手段の発展)

In 1438, Johannes Gutenberg wanted a cheaper way to produce handwritten Bibles. His invention of the printing press encouraged the spread of reading and writing and an advance in scientific knowledge. This led to even newer inventions for sending and receiving information, eventually resulting in the development and linking of telephones, television, and computers. Although no one can predict the full effect of this technology, we can see both positive and negative effects in our daily lives.

[097] (天動説か地動説か)

In the sixteenth century it was believed that the earth was the center of the universe and that the sun, planets, stars, and all other bodies in the sky revolved around the earth. You "know" that this is not true, but can you give any convincing proof that it is not? In the true spirit of scientific inquiry, you may actually observe the movements of the heavenly bodies. The results of these observations will tend to show that the earth really is stationary with everything else moving around it. It requires very careful observation and thought to discover any real proof to the contrary.

[098] (発見を支えるもの)

Human beings tend to identify great discoveries with the people who made them: Newton and gravity, Marie Curie and radium, or Einstein and relativity. Of course, these were great people who changed our history and civilization, and they will always be remembered and praised for helping us to understand the laws of the universe. However, discoveries are never the result of single individuals working alone. Any discovery is always the result of a group effort, with each individual building on the achievements of people who lived before

them. This is why we say that each discovery has a “history”, in fact, one that is as old as humanity itself.

[099] (象の記憶力)

Elephants are highly regarded in many parts of the world for their special qualities great strength and intelligence being the main ones. One other quality often attributed to elephants is a very good memory. For example, an elephant can supposedly recognize a person he has seen only once years before. There are a few English expressions related to this ability. If someone has a very good memory, we say that he or she has “a memory like an elephant’s.” Another saying related to this is “An elephant never forgets.”

[100] (会話の量と人間の評価)

Extensive research has indicated that the more a person talks, the more positively they are evaluated, other things being equal. What this indicates is that it is not an excessive amount of talking that causes people to have negative reactions: it is the quality of the content. For example, if someone is constantly talking about what a good student or a good employee you are, you do not become upset with this amount of talk. On the other hand, if someone is constantly talking about what a good student or what a good employee he or she is, you may become upset with this amount of talk. Hence, it is the quality and not the quantity of talk that is important in determining others’ reactions.

[101] (交通事故の原因)

The steady increase since 1981 in the number of traffic deaths in Japan is generally regarded as the result of the growth in the number of cars and drivers and in the use of cars for leisure purposes. However, explaining the problem in this way only helps to hide the truth from us; traffic accidents are caused by people, not by socioeconomic trends. In every single case, someone is to be blamed, and in most cases, that someone is a driver.

[102] (暦の歴史)

Early in their history the Egyptians invented a lunar calendar by carefully observing the movements of the moon. Such a calendar caused difficulties because it did not fill the entire year. Then, somewhere in the Nile Valley, someone noticed that a very bright star began to appear above the horizon just before the floods came. The time between one rising of this star, which we now call Sirius, the Dog Star, and the next was 365 days, almost exactly a full year. The ancient Egyptians based their year on this cycle, dividing it into 12 months of 30 days each. This system left them with five extra days, which they used for holidays and feasting.

[103] (科学技術の進歩と人々の接近)

Technology has done much to bring people physically closer together. Vast improvements in travel and communication have made it much easier to meet and see persons from many different countries. Centuries ago when most people lived in small, isolated towns and villages, only adventurers or those living in large trade centers could have much contact with persons from other countries. Marco Polo required months to go to places jet planes can now reach in hours.

[104] (クメール帝国が残した遺産)

Among the civilizations of the world, the Khmer Empire of Cambodia is one of the least well known. It has not left us a great literature or religious system as India has; it does not seem to have had the administrative and philosophical sophistication of ancient China. Yet the Khmer left a unique stamp on the landscape of Cambodia in the shape of stone temples that are among the world's most beautiful buildings. Of the many temples they built, Angkor Wat, the enormous complex near the imperial capital, is one of the best preserved and perhaps most perfect examples of Khmer architecture.

[105] (睡眠の科学)

The amount of sleep required to maintain the body varies with age. The newborn baby requires as much as 22 hours of sleep per day, the normal adult usually requires seven and one-half to nine hours, and the aged may require as little as five or six hours of sleep per day. On the average, males require more sleep than females. There is no evidence that

sleep is more beneficial at any particular time of the night, although the depth of sleep may vary considerably. There is no doubt that sleep is deeper at night than sleep taken during the normal waking hours.

[106] (現代社会の教育理念)

A central concept in Japanese education today is to produce self-reliant citizens of a peaceful and democratic state and community with respect for human rights and love for truth and peace. Another principle stated in the Fundamental Law is equality in educational opportunity for all in keeping with their abilities. The Law prohibits discrimination based on race, creed, sex, social status, economic position, or family background.

[107] (がん)

A cancer is a continuous growth in the body which does not follow the normal growth pattern. The cells forming the cancer spread through the body to parts which may be far from the spot where the cancer began. Unless it is removed or destroyed, the cancer can lead to the death of the person.

[108] (世界の食糧事情)

Modern medicine can prevent or cure many of the diseases that have plagued the human race for millennia. Yet 40,000 children under the age of five die every day in the developing countries, largely from preventable causes, often for lack of a little more than a dollar's worth of health care, a regular supply of nutritious food, or clean water and sanitation. Modern science has made it possible to produce and deliver an abundance of food more than enough to feed the world. Yet malnutrition among children, resulting from insufficient food, ill health and lack of adequate awareness of the solutions, is on the increase in the developing world.

[109] (人間と動物の違い)

The fact that animals lose their knowledge of things as time goes by, and consequently their interest in them, accounts for their absurd behavior in many situations. They constantly interrupt one line of action to do something else, and they may come back to the first activity or forget it altogether. Human beings, on the other hand, thanks to language, are able to pursue one purpose or to act in relation to a principle or to an ideal over long period of time.

[110] (現代の家族形態)

The structure of family life is changing throughout the world, both in rich and poor countries. The idea that the family is a stable unit, in which the father provides money and the mother provides emotional security, is a myth. The percentage of unmarried mothers and divorce rates is increasing, the majority of poor people is women, and households are growing smaller. Marriages are dissolving with increasing frequency because of separation and divorce.

[111] (現代科学の負の遺産)

Modern physics has had a profound influence on almost all aspects of human society. It has become the basis of natural science, and the combination of natural and technical science has fundamentally changed the conditions of life on our earth, both in beneficial and harmful ways. Today, there is hardly an industry that does not make use of the results of atomic physics, and the influence these have had on the political structure of the world through their application to atomic weapons is well known.

[112] (カルチャーショックを乗り越える能力)

One of the most valuable personal skills we can acquire in our lifetime is the ability to live in a culture other than our own. This skill is especially valuable when we live or travel in a foreign country, because without it we become easy victims of culture shock. Culture shock is a condition of emotional stress caused by living in an unfamiliar culture.

[113] (形と色に関する固定観念)

We are all inclined to accept conventional forms or colors as the only correct ones. Children sometimes think that stars must be star-shaped, though naturally they are not. The people who insist that in a picture the sky must be blue, and the grass green, are not very different from these children. They get indignant if they see other colors in a picture, but if we try to forget all we have heard about green grass and blue skies, and look at the world as if we had just arrived from another planet on a voyage of discovery and were seeing it for the first time, we may find that things are apt to have the most surprising colors. Now painters sometimes feel as if they were on such a voyage. They want to see the world afresh, and to get rid of all the accepted notions and prejudices about flesh being pink and apples red.

[114] (環境への依存性)

All living things depend on one another and on their physical surroundings, or environment. A plant depends on water, light, air, and nourishment from the soil. In somewhat the same way, we depend on plants, animals, and the earth itself for food, shelter, and clothing. The branch of science that deals with the ways in which living things are related to one another and to their environment is called ecology. Scientists who study these relationships are called ecologists. The word “ecology” comes from Greek words that mean “study of the home, or surroundings”.

[115] (言葉の多義性)

There are words which are not exactly ambiguous but whose meaning depends upon the context in which they are used. Such nouns and adjectives are described as “unfinished terms.” To say “Honesty is the best policy” is not to tell us whether it is best for honest people, or for those who have dealings with them, or for society in general. Political thinkers talk a lot about equality, but without further information the term means little.

The Frenchman of 1789, who was prepared to sacrifice his life for equality, probably would have been at a loss to decide if it was equality of status, or equality of income, or equality before the law, or equality of opportunity for which he fought.

[116] (民主主義という言葉)

It is clear that the United States is a republic, but it may also be a democracy, in the way that the word is now used. If the people of the United States, England, and France wish to refer to their systems as democracies, and if to them a democracy is “a system of representative government based on the principles of freedom, and legal and political equality,” no one can or should prevent the people from using the term “democracy” in this way. To argue that it is wrong is to misunderstand the relationship between words and things. The important fact to notice here is that language grows and develops like a living thing, but its life depends on human decisions.

[117] (話すことの難しさ)

Speaking is the most difficult of all the language skills because it demands more or less simultaneous use of the whole range of skills rapidly and in many cases automatically. In speaking there is no time to stop and think since without some degree of fluency the communication process is destroyed. Speaking a language fluently means using the language in conversation at approximately the same speed as a native and at the same time being able to concentrate on what you are saying, rather than on how you are saying it.

[118] (ことわざの長所と短所)

We often use proverbs in our daily conversation, though sometimes they are often called just “sayings”. These phrases come from the Bible, Shakespeare, grandmother’s wisdom, famous plays, movies, and books. Since most of these expressions come from the past, when using them there is always the danger of sounding old-fashioned. On the other hand, proverbs are a very convenient way to express yourself as the phrase is ready-made. An added advantage is that proverbs are rather neutral in tone, so they do not offend anyone. However, using the same proverb over and over does not make the speaker sound very creative. Another thing to be careful of is that proverbs must be used in the right situation and with the right timing.

[119] (睡眠に関する迷信)

That it is better to go to bed before midnight has not been verified by science. Sleep, on the whole, differs according to individual needs. For instance, persons who live in cool climates need less sleep than those in warmer regions. There is an old superstition that claims that sleep before midnight is favorably influenced by the moon and stars. This fallacy was probably based on ancient astrological notions.

[120] (ギリシア人の宗教)

The religion of the Greeks, like many other religions, sprang from the feelings of wonder and fear, and was just as savage and crude as the religion of any African or Polynesian tribe. That we are inclined to think otherwise is due to the fact that the literature in which it has been preserved for us is more artistic than that of other nations, and lends a delusive glamour to stories and rituals which we should easily perceive to be barbarous if we met them undecorated. Some of the earliest records, like the Homeric poems, seem to have been altered by late editors, and, as in the case of the Hebrew Bibles, we have to look carefully for traces of the more primitive customs and beliefs.

第7章 主語と動詞を発見する (倒置構文)

[121] (離婚の増加)

The American family has gone through many changes in the past fifty years. Primary among these changes is the current attitude about divorce, the legal end of a marriage. Sociologists predict that 40 percent of all marriages in the United States in the 1980s will end in divorce. However, this is a partially misleading statement four out of five of all divorced people marry again. Marriage and family are still very important to Americans, in spite of the divorce statistics. With less emphasis on tradition, on religion, and on the economic dependence of women on men (due to the increase of women who work), Americans seem less likely to remain in a marriage that has problems.

[122] (科学理論の探求)

Science is based on careful observation and experiment enabling theories to be constructed which connect different experiences. Regularities in the workings of nature are sought which hopefully reveal the fundamental laws that govern the behaviour of matter and forces. Central to this approach is the willingness of the scientist to abandon a theory if evidence is produced against it. Although individual scientist may cling to some cherished idea, the scientific community as a group is always ready to adopt a new approach. There are no shooting wars over scientific principles.

[123] (水の供給)

Among the things which people of the modern, industrialized nations take most for granted is an adequate supply of clean and fresh water. As 70 % of the world's surface is covered with water, it is hard to believe that there could be serious shortages of water, so we need to be reminded that only 2 % of the water in the world is fresh and ready to be used for human consumption and agricultural purposes. And of that 2 %, so much is locked up in the ice of the North and South Poles that only 0.014 % is readily available in the world's rivers, streams and lakes.

[124] (新しい経済倫理)

Out of the religious arguments of the 15th and 16th centuries came a new economic morality. Its basis was the idea that God had intended a place on earth for each individual, thorough which the individual could accomplish what God wanted him to do. It was the duty of each person to discover his place, and when he found it, to do his best in it. Any place in society was equal in merit to any other. Worldly success indicated that a man had found his place and that God had smiled upon him. Avoid idleness, work hard, and save. These were the rules for good moral behavior and for earning a place in heaven. They suited the needs of the growing middle class which lived in the cities and encouraged the hard work and capital accumulation that led to economic growth.

[125] (女性の地位向上)

Since World War II the position of women around the globe has begun to change at an accelerating rate. Women have gained most in politically progressive or economically developed countries, but there is no single explanation for women's gains, and in no country do women enjoy full political, legal, economic, social, educational, and sexual equality with men. Throughout much of the world, women are gradually emerging from millennia of subordination to men and confinement to the family, but progress is uneven and has even suffered reversals.

[126] (産業革命の鍵)

The key to the Industrial Revolution was dramatically improved methods of production. First, agriculture production increased dramatically. With less people needed to produce food, more could live in cities and work in manufacturing jobs. Industrial productivity then improved as manufactures began to use specialization and division of labor. No longer did a single craftsman make a product from beginning to end. Instead, the manufacturing process was broken down into small steps, and each step was performed by a worker who specialized in doing that task as efficiently as possible. As labor was divided, tasks also became simpler. This meant both that less skilled workers could be hired and that machines could be developed to perform some of the work. Every investment in laborsaving machinery further increased productivity that is, allowed the same number of workers to produce even more goods. As a result, some workers lost their jobs, but society's total wealth increased.

[127] (生命と環境)

The history of life on earth has been a history of interaction between living things and their surroundings. To a large extent, the physical form and the habits of the earth's plants and its animal life have been molded by the environment. Considering the whole span of earthly time, the opposite effect, in which life actually modifies its surroundings, has been relatively slight. Only within the present century has one species man acquired significant power to alter the nature of his world.

[128] (地球の研究)

Many of us have seen the Earth beneath us from the window of an aircraft. We are also familiar with the surface of the land on which we build our towns and cities, roads and communication systems, and with the mountain ranges, rivers and lakes we exploit for commercial and leisure purposes. Yet in comparison with other branches of the physical and natural sciences, scientific study of the Earth's surface is comparatively new — barely more than a century old. For a long time research was dominated by studies of how the Earth had developed; only recently has attention turned to how the Earth works — to its present processes.

[129] (原因と結果)

Causes and effects are not easy to analyze. An error commonly made when analyzing causes and effects is to oversimplify. It is usually incorrect to assume that a single factor caused a single situation. For example, when fish in a river start to die, we speculate on the cause. Some say that the flood last spring destroyed the fish food growing in the river; others may say the chemicals dumped in the river by the XYZ Chemical Company have killed the fish. Others may speculate that new roads and home development along the river have destroyed the natural environment of the fish. The truth of the matter is that perhaps none, all, or a combination of these causes have resulted in the death of the fish. Very seldom is a condition the result of just one factor.

[130] (都市と脳の発展)

Most of the world's great cities have grown unsystematically, little by little, in response to the needs of the moment. Very rarely is a city planned for the remote future. The evolution of a city is like the evolution of the brain: it develops from a small center and slowly grows and changes, leaving many old parts still functioning. There is no way for evolution to tear out the ancient interior of the brain because of its imperfections and replace it with something of more modern manufacture.

[131] (言語の変化)

Perhaps one of the most fascinating aspects of our language is that it is constantly changing. Although at times language may seem to be a system that is firmly established, it is actually a dynamic, constantly changing system that people control. Language is a tool that people form, reshape, and use however it will best help them communicate ideas and feelings. Our control of language can be seen most clearly in how words change over a period of time. People create words to deal with current conditions. When conditions change, so does language.

[132] (アメリカの階級)

One of the most striking features of class in America is the widespread popular disbelief in its existence. Woodrow Wilson in 1912 observed that Americans like to think that “this is

the country where there is no distinction of class, no distinction of social status.” To judge from their responses to modern sociologists’ questionnaires, American attitude toward class have not changed much during the past two generations. Americans either continue to assert that classes are almost totally nonexistent in this country, with what barriers there are being easily broken, or they insist that they belong to the great middle class. Nor is indifference to class confined to the lightly educated general public. Close scrutiny of the writings of American political historians reveals that most of them are oblivious to any interconnections between politics and class, while the few who take account of them tend to attribute slight significance to the relationship.

[133] (アリストテレスの観察力)

The ancient Greek philosopher and scientist Aristotle made important contributions to a number of studies. Such was Aristotle’s fame that, throughout the Middle Ages in Europe, his every opinion was accepted without question. Some of his most impressive work was done in biology, where he proved to be a sharp-eyed observer. However, in one of his books, he makes the following statement: women have fewer teeth than men.

[134] (恐竜の滅亡)

After dominating this planet for about 150 million years, the dinosaurs vanished. What happened to the dinosaurs has puzzled scientists for more than a century. So complete was their disappearance that humanity was unaware of their existence until the 19th century. Although their bones had been lying beneath the soil, quite literally for ages, no one had ever discovered one.

[135] (少ない外国語学習時間)

Many experts point to reduced foreign language teaching hours as one of the main reasons for the relatively poor level of both written and spoken English in Japan. The Ministry of Education calculates that in 1995 Japanese junior high schools offered 117 hours of foreign language education per year, far fewer than those in European countries. Comparative figures for Holland, France and Germany were 303, 173, and 151 hours respectively. It is generally considered that the great difference in language structure between English and Japanese makes the former much more difficult for Japanese students to learn. Despite this, Japanese schools devote less time to language teaching than do schools in European countries.

[136] (コンピューター革命)

In recent years the computer has established itself as an important feature of modern life. It is no longer a large, expensive machine used exclusively by specialists in major industrial corporations, government and the military. Many of us use computers daily, sometimes without even being aware of the fact. Banking, traffic control, word-processing, social security applications, accounting and record-keeping, design, office management, computer games, various hobbies these are merely a few of the applications where

computers are now a part of our everyday life. The computer revolution, as it is commonly known, is more than just a technological development. It may well change society as radically as did the Industrial Revolution.

[137] (大都市と個人)

Great cities are strange phenomena. It is wrong to compare them with beehives, for in a beehive the wish of the individual has been unquestioningly sacrificed to the good of the community. Had we ascended from the bee perhaps the greatest happiness we could achieve would be an unspectacular death in the service of London. But in London, as in all modern cities, it is the individual that counts. Our eight millions split themselves up into ones and twos: little men and little women dreaming their private dreams, pursuing their own ambitions, crying over their own failures, and rejoicing at their own successes.

[138] (文明と文化の違い)

The term civilization is similar to culture, but it refers only to life styles that feature complex economic, governmental, and social systems. A civilization is technologically more advanced than other cultures of its time. A culture is any way of life, be it simple or complex, advanced or not advanced. Civilization is a way of life that arose after people began to live in cities or in societies organized as states. It consists of the art, customs, technology, form of government, and everything else that makes up the way of life in a society. In this respect, civilization is similar to culture. But culture refers to any way of life and includes both simple and complex life styles. Therefore, although every human being lives within a culture, not everyone lives within a civilization.

[139] (おとぎ話)

As we cannot know at what age a particular fairy tale will be most important to a particular child, we cannot ourselves decide which of the many tales he should be told at any given time, or why. This only the child can determine and reveal by the strength of feeling with which he reacts to what a tale evokes in his conscious and unconscious mind. The true meaning and impact of a fairy tale can be appreciated, its enchantment can be experienced, only from the story in its original form. Describing the significant features of a fairy tale gives as little feeling for what it is all about as the listing of the events of a poem does for its appreciation.

[140] (植物が育つ土壌)

The development of world agriculture and the increase in human population have been brought about by a long trial-and-error process. People have constantly tried to grow crops in new environments, and those plants which survive they preserve and improve for future use. So the first consideration for any farmer is that of finding the most productive plant for particular local conditions. Not all plants can be grown on a particular piece of land; some survive only in tropical environments, some require a cold climate, and some a special soil. The present distribution of different crops in different regions of the world is a result of those repeated trials and errors with many failures and some successes.

第 8 章 名詞節を発見する

[141] (現代社会の歪み)

The industrialized world has survived the worst economic depression since the 1930s. Even in the richest countries, however, there are millions of unemployed, particularly among the young who have graduated from high school or university only to find there are no jobs. Many older workers, too, find their skills are no longer needed in the new world of high technology. Governments have been unable to pay for the many services demanded by their citizens, and even the richest have gone deeply into debt. At the same time, in our pursuit of economic prosperity, we have come to realize, as never before, that we are rapidly exhausting the rich natural resources of the planet and destroying our natural environment.

[142] (生活の質)

People spend a lot of time thinking about their “quality of life.” This concept is difficult to define but basically it refers to how content we are with our lives. We can control enjoyment of life to some extent and most decisions are made with this in mind. Take buying a car, for example. This is something we do to make transportation easier for ourselves. Being employed is another way we improve our lifestyle. Working means we receive a salary which enables us to buy things we need and want. Marriage is also a way in which we hope our quality of life will improve through companionship and children. Of course, there are things which we have no control of. We cannot influence climate in the place where we live, control who our parents are or stay healthy continuously.

[143] (医者と告知)

Studies show that most doctors sincerely believe that the seriously ill do not want to know the truth about their condition, and that informing them risks destroying their hope, so that they may recover more slowly, or deteriorate faster, perhaps even commit suicide. As one physician wrote: “Ours is a profession which traditionally has been guided by a precept that transcends the virtue of uttering the truth for truth’s sake, and that is ‘as far as possible do no harm.’”

[144] (エジプト人と永遠の生命)

Egyptian sculpture, we know, was highly endowed with magical properties. For the ancient Egyptian the representation of an object stood for the object itself. This was particularly important to the Egyptian belief in a life after death. The Egyptians believed that the soul, born with the body, continued through life with the body, that it looked like the body, though invisible, and that at death they went together into the next world. It was essential to the everlasting life in the future that the likeness of the body be preserved. Besides the art of preserving the body, the Egyptians were also the first to develop the art of portraiture. The depiction of food, animals, servants, and acts of service, largely in relief or

painting, also served the magical duty of providing for the wants of the soul. It was to provide for the life in the future that the tombs of the kings and nobles were so completely furnished and ornamented with portraits and pictures.

[145] (言語の象徴性)

A symbol is anything that stands for something else. Language is symbolic in that words are representations of objects, ideas, and sensations. As a result of our ability to communicate symbolically, the range of expression that is available to us is virtually unlimited. We can refer to a chair without pointing to any chair in particular; we can even refer to a unicorn and make ourselves understood, even though nobody has ever seen one except in paintings.

[146] (チンパンジーの知能)

Field studies show that chimpanzees not only use but also make tools, and that many Primates have an extraordinarily complex social organization based on elaborate signalling systems. Observation also indicates that chimpanzees have a concept of self and can dissemble and deceive others. Chimpanzees can co-operate in that one can learn to ask another for one out of six possible tools required to obtain food, which is then shared. It has even been claimed that they attribute mental states to others. The evidence here is that a chimpanzee, shown pictures of a human actor struggling with a problem, can select from a series of photographs the one portraying the solution.

[147] (子どもの自由さ)

Where children have the grand advantage over grown-up people is in their freedom from the weight of authority and tradition. They are forced to behave properly at meals and lessons and never to make themselves a nuisance; but in their playtime, which is of course the bulk of their time, the majority of children, even only children, are left to invent their own “games” as they are called.

[148] (民主主義の発展)

Britain was once ruled by the king, and nobody could prevent him from making any laws he pleased, or resist his demands for taxes. He had an army, and anybody who disobeyed him could be captured and punished. In course of time all this became changed, and now the people of Britain really govern themselves, because the men who make the laws are chosen by the people's vote, and they must do what the people really want or they will not be voted for again. A nation in which the people elect their own lawmakers is called a “democracy.” The idea of democracy is not new. It was tried in Ancient Greece and again by the Romans. Other countries besides Britain have it today. It works very well but only on one condition. The millions of people who do the voting must be sensible and intelligent and that is where education becomes important.

[149] (人格形成の決定要素)

Sociologists and psychologists have argued for centuries about how a person's character is formed. The argument has long been known as "Nature versus Nurture," for the two main opposing theories. According to the first theory, nature through genetics determines what a person will be like. On the other hand, the opposite theory claims that a person's character is formed after birth, so the most important factors are cultural and environmental.

[150] (人格と評判)

Character is a very different thing from reputation, though often the two are confounded. Reputation is what a man is thought to be; character is what a man is. The one is opinion; the other is a fact. Circumstances and associations, or even artful management, may give one for a time a fictitious reputation; but his character is himself, and that at last makes his reputation. A man may be honestly indifferent to reputation; but he cannot be honestly indifferent to character.

[151] (満足の喪失)

Today we live in an age of commercials. Everyone seems to be engaged in an incessant endeavor to persuade others that what he has to sell them is necessary for their well-being. And perhaps we are also engaged in the same endeavor or at least preparing for it. There seems to be no limit to what we consider necessary for our well-being. Once some needs have been satisfied, others appear, as if from nowhere. And so we are never satisfied. We never know when to say "enough". And yet, as a proverb says, "enough is as good as a feast".

[152] (日本人の笑い)

Smiles and laughter, in case they are genuine in feeling, help us to communicate with others far better than words. Words conceal as well as reveal meaning and thought. But a sympathetic smile, or a frank laugh from the heart are unmistakably positive expressions of good will, and so very important in both human and international relationships. The Japanese have sometimes been criticized for smiling too much, or for laughing at what we in the West consider inappropriate moments. When we reconsider the motives for such smiles and laughter in the context of Japanese culture, we no longer feel surprise.

[153] (公正か慈悲か)

In a widely used personality test, people are asked to say which they feel is more important: justice or mercy. On the one hand, those who choose justice are considered to be more rational and fair-minded. They do not allow their emotions to interfere with what they know is right, and all their decisions are based primarily on sound reasoning. On the other hand, those who feel mercy is more important are thought to let their feelings rule their heads. Although they can also be fair-minded, people in this latter group think

carefully about how their judgments can affect others and try to avoid causing further suffering.

[154] (読者の理解)

Readers are inclined to see what they believe. This is natural enough, because new experience must always be related to existing patterns of thought and behavior. Readers on our courses for better and faster reading who have analyzed their answers to the comprehension questions tell us that their mistakes are often due to understanding what they thought the author should have said.

[155] (水の惑星)

It is astonishing, on a planet whose surface is composed mostly of water, how extraordinary little of it is safe to drink less than one percent. The vast majority is salt water and unfit for human consumption. And much of our fresh water is unavailable, hidden in underground seas, streams, and rivers.

[156] (進歩と退廃)

Progress is a very recent invention. In the age of Queen Elizabeth and William Shakespeare, men believed that the race was in a state of chronic decay. In spite of printing, the compass and gunpowder, the earlier was considered the riper world. Those who actually lived through what we have learnt to regard as one of the most brilliant and progressive epochs of all history regarded themselves as men of the decadence. We, on the contrary, regard ourselves as men of the dawn and the threshold, an army in advance, not in retreat. It remains to be seen what the judgment of future historians will be.

[157] (宇宙の生命体)

The discovery of life beyond Earth would transform not only our science but also our religions, our belief systems and our entire world view. For in a sense, the search for extraterrestrial life is really a search for ourselves who we are and what our place is in the grand sweep of the cosmos. Traditionally, biologists believed that life is an accidental happening the result of an extremely rare chemical event. It follows that the likelihood of its happening again elsewhere in the cosmos is almost zero. This viewpoint derives from the second law of thermodynamics, which predicts that the universe is dying slowly and inevitably moving toward a state of total chaos. Life resists this trend only because it is a statistical oddity.

[158] (国家と個人)

Greek and Roman society was built on the conception of the subordination of the individual to the community, of the citizen to the state; it set the safety of the commonwealth, as the supreme aim of conduct, above the safety of the individual whether in this world or in a world to come. Trained from infancy in this unselfish ideal, the citizens devoted their lives to the public service and were ready to lay them down for the common good; or, if they

shrank from the supreme sacrifice, it never occurred to them that they acted otherwise than preferring their personal existence to the interests of their country.

[159] (テレビとの相互作用)

As television becomes more and more a part of the everyday environment, it becomes as indispensable to people as air. In most cases, however, people are not consciously interacting with television. Programs and commercials stream into homes incessantly, yet even though some of the information broadcast may well be worthwhile most people do not consciously think about the content or objectively consider whether or not it is really useful to them. Most people, likewise, make no effort to learn how the information that is broadcast is chosen and processed, to learn about the production processes going on behind the screen, or to judge the content of the information broadcast.

[160] (孤島の生き物)

In all the world of living things, it is doubtful whether there is a more delicately balanced relationship than that of island life to its environment. This environment is a remarkably uniform one. In the midst of a great ocean, ruled by currents and winds that rarely shift their courses, climate changes little. There are few natural enemies, perhaps none at all. The harsh struggle for existence that is the normal lot of continental life is softened on the islands. When this gentle pattern of life is abruptly changed, the island creatures have little ability to make the adjustments necessary to survival.

第9章 形容詞節を発見する

[161] (生物学の発展)

We do not know for sure what was the first form of systematic knowledge our ancestors developed. Certainly the attempt to classify plants and animals, to understand health and disease, must have been one of the earliest. The domain that we now call biology, dealing with the forms and processes of life, is one of the fundamental ways human have tried to make sense of the world in which they lived. The difference between present knowledge and the knowledge of our ancestors is greater in biology than any domain except physics.

[162] (観光客の閉鎖性)

The understanding people have of other countries is often very superficial. Tourists, for example, frequently have little opportunity and sometimes not even the desire to see how the people of the country they are visiting really live. It may only be possible for them to stay at tourist hotels and to see typical tourist attractions. Perhaps the only persons they will be able to talk with are people connected with the tourist industry, such as tour guides, hotel clerks, and so on.

[163] (事実と確信)

There are many things that people often assume to be true that are not at all accurate. One of them concerns how they feel about themselves. Indeed, people who have false feelings of inferiority are more convinced of their beliefs than are people who have a correct perception of themselves. If an extremely suspicious person believes that the FBI is spying on and persecuting him, no amount of logical argument will dissuade him. His convictions are as firm as the Rock of Gibraltar. A conviction about oneself may contradict the facts, but the person who has come to think of himself as inferior is as unimpressed by facts as is the overly suspicious.

[164] (絵画と個性)

There is no “secret” to the process of making good drawings. There is no one formula or hundred formulae which anyone can give you which will cover all the possible approaches to drawing well. One of the greatest virtues of art is that no two works of art are exactly alike, and each man’s work is as individual as each man’s signature. If you tried to draw exactly like anyone else, you would be a mere imitator and it would be a crime against your own individuality. Each artist has something of a very personal nature to say in every line he makes, and each man would be an artist if he were true to his personality and expressed his most honest conception in drawing his own way.

[165] (社会の変化と離婚の増加)

The divorce rate began rising sharply in the 1960’s and 70’s. These were times of great change in American society. Many Americans became more concerned with individual rights, and less willing to accept outside control over their lives. Some children rebelled against the social and moral values of their parents, and some husbands and wives felt free to end marriages which they believed were not successful. The result of all these changes was a growing number of divided families.

[166] (共有知識の減少の結果)

During the period 1970-1985, the amount of shared knowledge that we have been able to take for granted in communicating with our fellow citizens has been declining. More and more of our young people do not know things we used to assume they knew. A side effect of the decrease in shared information has been a noticeable increase in the number of articles in such publications as Newsweek and the Wall Street Journal about the surprising ignorance of the young.

[167] (非言語コミュニケーション)

Nonverbal communication expresses meaning or feeling without words. Universal emotions, such as happiness, fear, and sadness, are expressed in a similar nonverbal way throughout the world. There are, however, nonverbal differences across cultures that may be confusing to foreigners. For example, feelings of friendship exist everywhere but their expression

varies. It is acceptable in some countries for men to embrace each other and for women to hold hands; in other countries such a display of affection is shocking.

[168] (飢饉の影響)

Famine is a severe shortage of food that generally affects large number of people. Natural causes include dry weather, floods, earthquakes, insect plagues, and plant diseases. Human causes include wars, civil disturbances, deliberate crop destruction, poverty, and inefficient food distribution. The immediate consequences of famine are weight loss in adults and delayed growth in children. Deaths are due in part to starvation and the diminished ability to fight infection. One of the most dramatic large-scale consequences of famine is large movements of people.

[169] (科学の発展順序)

The sciences have developed in an order, the reverse of which might have been expected. What was most remote from ourselves was first brought under the laws of science, and then, gradually, what was nearer: first the heavens, next the earth, then animal and vegetable life, then the human body, and last of all (as yet very imperfectly) the human mind. In this there is nothing unexplainable. Familiarity with detail makes it difficult to see broad patterns; the outlines of Roman roads are more easily traced from airplanes than from the ground.

[170] (貿易の役割)

The purpose of trade is to supply human needs and desires and to furnish employment and profit to those who supply them. In early times there was a direct exchange of commodities. This was known as barter and is, to a limited extent, carried on today. A family might have a surplus of potatoes, some of which would be exchanged with a family having an oversupply of meat. Another might exchange butter for fruit, and another, lumber for corn. As division of labor grew, trade expanded and a medium of exchange, or money, became necessary. Surplus and need applies to nations, as well as to families, and is the chief basis of commerce. The United States has a surplus of cotton and wheat, but it needs silk and sugar. Great Britain has coal and many kinds of manufactured articles to sell, but she must buy lumber and cotton. Canada sells pulp and paper, but purchases tea and tropical fruits. Trade, whether domestic or foreign, serves to balance such condition.

[171] (社会への順応の程度)

The extent to which societies have imposed patterns upon their extremely unlike individuals has varied greatly at different times in history and at different levels of culture. In the more primitive cultures, where societies are small and bound by very tight traditions, the pressure to conform is naturally high. Anyone who studies anthropology must be astounded by the fantastic nature of some of the traditions to which men have had to conform. The advantage of a large and complex society such as ours is that it enables human beings to express themselves in a great many ways; there does not have to be the

kind of intense conformity which we find in small primitive societies.

[172] (言語学習)

All languages are approximately equally easy for a child learning a first language. The ease with which an adult may learn a second language depends to some extent on how similar the new language is to that person's first language. For example, German and Dutch share a good deal of their vocabulary and grammar rules, making each one relatively easy for speakers of the other to learn. By this criterion alone, Frisian, Swedish, Danish or Norwegian should be candidates for the easiest second language for an English native speaker. Opportunity and motivation are also factors. It will be easier to learn French in a French village, where it is essential for daily life, than in England in a mainly English environment. Respect for a language and its speakers will remove psychological barriers to learning so ease of learning is also relative to a social context.

[173] (芸術の脳への効果)

Art can exercise the brain, as well as the eye and hand. The test of intelligence is not how much we know how to do, but how we behave when we don't know what to do. Similarly, any situation, any activity, that puts before us real problems that we have to solve for ourselves, problems for which there are no answers in any book, sharpens our intelligence. The arts are full of such problems, which is why our skilled artists and craftsmen are very likely to be sharp-witted people. Their minds are active and inventive: they have to be.

[174] (慈善への貢献と日本人)

Japanese private contributions to Third World charities are on the increase, which is regarded as one sign of people's growing awareness of global problems. Although critics may contend that the response of the Japanese public is long overdue, there are several historical reasons for the reluctance of individual Japanese to become involved in charitable enterprises abroad. The Japanese have traditionally relied on the government to solve most social problems outside the individual's own environment. Charitable giving is strong in Japan, but is normally confined to those in one's family, company, or neighborhood.

[175] (絵の正確さ)

From earliest times man has tried to record in pictures the world about him. Cavemen drew pictures of the animals they hunted on the walls of their caves. People of early civilizations painted pictures of their way of life on pottery and other objects. Later, artists used paint to depict men and events on canvas or on the walls of buildings. These methods of making records were not really satisfactory. The accuracy of a picture depended on how well a person could draw, and not everyone was a skilled artist. And even artists often had to depend on memory or other person's reports. Not until the early 19th century was a method developed that allowed the average person to make an accurate picture of a person or object.

[176] (謝罪の方法)

Recently in Japan an incident happened which would never have occurred in a Western country. The president of a large Japanese company took responsibility and resigned his post when it was revealed that one of the company's employees had engaged in illegal dealings with foreign countries. The resignation was considered to be a most profound way for the firm to apologize.

[177] (現代の自殺)

In Japanese society, suicide was an adult expression of honor and responsibility for centuries. But now it is changing. It is becoming an escape from reality for youngsters who cannot cope with society's changing demands. Now is the time much attention should be paid to youth suicide in Japan. It is a matter for regret that the percentage of Japanese young people committing suicide is increasing every year.

[178] (「個人」の重要性)

The concern for individual rights is one of the reasons why Americans are so interested in issues involving human rights both at home and abroad. At its best, individualism has nothing to do with selfishness and in fact it can promote the exact opposite charity. Ideally, people should not help others because they are friends, co-workers, or part of one's group, not because they are of the same race, religion, or nationality, and not even because one feels there is an obligation to help. Rather, persons should help others simply because they are fellow human beings. It is the individual which is ultimately important not any of these other factors.

[179] (人間と世界との関係)

The relationship between man and his world has suddenly altered in recent years. Until recently man seemed so insignificant in relationship to the world that he felt that nothing he did would make any difference to the natural order of things. It was probably the development of the atomic bomb and the realization that he had in his power a means of destroying the whole world that awoke man to his responsibilities.

[180] (豊かな国の問題)

While poor countries, often referred to as the Third World, suffer from the lack of proper food, housing or medical care, rich countries have problems, too. They are not always very pleasant places to live in. Often it is the things which make them rich that also make them unpleasant: that is, the products that make those countries rich also pollute the air and water. Most people put up with this because they feel that a certain amount of pollution is necessary and unavoidable. Other people insist that the factories should get rid of the waste so that it does not pollute the environment.

第 10 章 副詞節を発見する

[181] (「孤独」の癒し効果)

“Solitude” is an almost extinct word in modern society. Wanting to be alone with one’s thoughts or dreams is considered almost anti-social. But a certain measure of solitude is necessary for our mental and spiritual well-being. Humans are social animals, but we are also thinking animals. Even without the aspiration to think, solitude is often a healing state, when we are hurt and fatigued from too much contact with other personalities, no matter how we may like them most of the time.

[182] (自然への脅威)

Nature, once a harsh and feared master, now lies in subjection, and needs protection against man’s powers. Yet because man, no matter what intellectual and technical heights he may attain, remains embedded in nature, the balance has shifted against him, too, and the threat that he presents to the earth is a threat to himself as well.

[183] (匂いの感覚)

A man who cannot see is blind, one who cannot hear is deaf, yet there is no everyday word to describe the man who has lost his sense of smell. Perhaps this is because a sense of smell, although it adds much to the enjoyment and appreciation of life, is not as necessary as the other senses. The moment you decide to explore the world of scents around you, you will be amazed by its diversity.

[184] (物理理論は仮定に過ぎない)

Every physical theory is temporary, in the sense that it is only a hypothesis: you can never prove it. No matter how many times the results of experiments agree with some theory, you can never be sure that the next time the result will not contradict the theory. On the other hand, you can disprove a theory by finding even a single piece of evidence that disagrees with the predictions of the theory. As philosopher of science Karl Popper has emphasized, a good theory is characterized by the fact that it makes a number of predictions that could in principle be disproved or falsified by observation. Each time new experiments are observed to agree with the predictions, the theory survives, and our confidence in it is increased; but if ever a new piece of evidence is found to disagree with the theory, we have to abandon or modify it.

[185] (需要と給料の関係)

Skilled men do not earn high wages because they have acquired the skill necessary to their occupations; they earn high wages because the acquiring of that skill has limited their supply. Unskilled men receive low wages not because their occupations need no skill, but because the absence of skill allows their supply to increase readily. A wage-rate measures the value of labor, and value is a rate of exchangeability, not an inherent property of the

thing valued. It can, therefore, properly be understood only in terms of demand relative to supply. Were doctors as numerous as laborers in relation to the demand for their services, their reward would be at a low level. Conversely, were laborers as scarce as doctors relative to the demand for their services, the wages of a laborer would be high, although the work is unskilled.

[186] (技術発展と優越感)

It is easy enough to show that the sense of superiority of one society over another is absurd. Let us first take the case of a sense of superiority that is based upon a real superiority in technological achievement. We do not think less of Shakespeare because the society in which he lived, and which produced him, was technologically inferior to our own. Moreover, his achievement is absolutely unaffected by our continuing technological progress. It is in no way true that his achievement is being progressively diminished as we improve our cameras, make yet more cars, or travel to the moon. It may well be that, as our ways change under the influence of new inventions, Shakespeare becomes progressively more difficult to understand, but nobody thinks that this diminishes his greatness.

[187] (中世の大学)

Universities, like cathedrals and parliaments, are a product of the Middle Ages. The Greeks and the Romans, strange as it may seem, had no universities in the sense in which the word has been used for the past seven or eight centuries. Much of their institution in law, rhetoric, and philosophy it would be hard to surpass, but it was not organized into the form of permanent institutions of learning. Only in the twelfth and thirteenth centuries do there emerge in the world those features of organized education with which we are most familiar, all that machinery of instruction represented by professors and colleges and courses of study, examinations and academic degrees. In all these matters we are heirs and successors, not of Athens and Alexandria, but of Paris and Bologna. In recent years the early history of universities has begun to attract the serious attention of historical scholars, and mediaeval institutions of learning have at last been lifted out of region of myth and fable where they long lay obscured.

[188] (アメリカ人は嫌われている)

Though the United States has spent billions of dollars on foreign aid programs, it has captured neither the affection nor esteem of the rest of the world. In many countries today Americans are cordially disliked; in others merely tolerated. The reasons for this sad state of affairs are many and varied, and some of them are beyond the control of anything this country might do to try to correct them. But harsh as it may seem to the ordinary citizen, filled as he is with good intentions and natural generosity, much of the foreigners' hatred has been generated by the way Americans behave.

[189] (日本での言語の役割)

Language plays a limited role in Japanese society. Japanese people generally believe that it is needless to speak precisely and explicitly with one another because they take it for granted that they share a lot of common assumptions. The function of language as a means of social communication in this country, then, is to emphasize and reinforce the feeling of homogeneity. In daily conversations, messages become telegraphed. Time, space, and logical relationships are often unexpressed. Even major points are sometimes left unsaid. People are expected to understand meanings in view of the context of the situation in which they are embedded.

[190] (物事の記述と人間の理解)

Throughout history man has had a natural curiosity about himself and his environment. Describing what he sees and feels has helped him to understand and explain the world about him and his place in it. In fact, much of the knowledge we have of the world we live in has come not so much from our own observations as from other men's descriptions. We know a great deal about many things we have never actually seen because they have been described to us: the way the blood circulates in the body; what outer space is like; how the solar system works; the causes and outcome of the Civil War.

[191] (天災は忘れた頃にやってくるのか)

There is an old saying in Japan that natural calamities only visit us when we least expect them, but this saying only applies to those of us living in normal conditions. There are, however, many people in the world suffering from natural disasters which occur repeatedly. We can know the facts of many disasters through mass media such as radio, television and newspapers, but we need to give assistance to victims voluntarily, instead of being only passive bystanders. Moreover, we must try to prevent these formidable natural disasters through foresight and our highly developed scientific technology. At the same time, we should remember that natural disasters sometimes are man-made. Till quite recently we have been blissfully ignorant of this fact. Now we must concentrate on preventing disasters. Prompt and constant action is needed. This action should begin from each and every one of us.

[192] (人間と動物の仕事の違い)

The work of the bird in building its nest shows more perseverance than most humans in their building projects. The work of the spider in making its web surpasses the quality of most human weavers. A bee's work is superior to the construction work of most human architects. But the biggest difference between the work of an architect and a bee, for example, is that the architect can imagine a structure before building it while a bee cannot. At the end of every human labor process, we get a result that already existed in the mind of the laborer before it was started. Human workers not only change the form of the material they work with, but also know the purpose for their work, while animals do not.

[193] (法律と実際)

Governments make laws, but whether they are carried out, and how the police behave, depends on the general temper of the country. If large numbers of people are interested in freedom of speech, there will be freedom of speech, even if the law forbids it; if public opinion is sluggish, inconvenient minorities will be persecuted, even if laws exist to protect them.

[194] (アメリカでの立身出世)

Abraham Lincoln's career fits a popular American belief that every child can dream of becoming president. In other words, no matter how humble a person's beginning, there is no class system that prevents him or her from becoming a leader in industry, government, or any of the professions if he or she has ambition, brains, and a willingness to work.

[195] (読書の効用)

It is up to parents to encourage their children to read as much as possible while they are still young so that they become accustomed to handling books. Parents should take children to bookstores and help them choose interesting titles, or let them join a local library; books also make ideal birthday presents. Children's books should be one of the pleasures of everyone's childhood. Books ought to stimulate the child's imagination and at the same time lead the child gradually into the world of knowledge. As children get older, they will be able to compare what they have learned from books with what they have learned from their experiences in life. In this way they will be able to develop enough common sense so that they can discriminate fantasy and reality.

[196] (思春期の親子関係)

As children enter adolescence, they begin to demand greater freedom to go where they please, do what they please, and make decisions without parental interference. Many parents do not know how to deal with their teen-agers and seek advice from books, lectures, and parent-training courses. Parents want to maintain a friendly relationship with their teen-agers and also want to guide them so that their behavior will be whatever the parents consider proper and constructive. But in a society of rapidly changing social and moral values, parents and children often disagree about what is important and what is right.

[197] (各国人の一般化)

The belief that each nation has its special characteristics is old and deep-seated. In Europe, for example, it is commonly believed that Frenchmen are constantly absorbed with thoughts of love, that the Spaniards are proud, the Scots stingy, the English aloof, the Russians melancholy, the Italians demonstrative and so on. If one has actually lived in these countries one knows that such generalizations can be misleading or even wholly untrue. Even a casual glance at French history will reveal how many Frenchmen led lives devoted to religious piety, and the national heroine, Jeanne d'Arc, was so concerned with

feeling her country that she never seems to have fallen in love.

[198] (親への幻滅と反抗)

Disillusionment with the parents, however good and adequate they may be both as parents and as individuals, is to some degree inevitable. Most children have such a high ideal of their parents, unless the parents themselves have been unsatisfactory, that it can hardly hope to stand up to a realistic evaluation. Parents would be greatly surprised and deeply touched if they realized how much belief their children usually have in their character and reliability, and how much this faith means to a child. If parents were prepared for this adolescent reaction, and realized that it was a sign that the child was growing up and developing valuable powers of observation and independent judgment, they would not be so hurt, and therefore would not drive the child into opposition by resenting and resisting it.

[199] (現代の消費)

Thanks to modern machinery, production is outrunning consumption. Organized waste among consumers is the first condition of our industrial prosperity. The sooner a consumer throws away the object he has bought and buys another, the better for the producer. At the same time, of course, the producer must do his bit by producing nothing but the most perishable articles. "The man who builds a skyscraper to last for more than forty years is a traitor to the building trade." The words are those of a great American contractor. Substitute motor car, boot, suit of clothes, etc., for skyscraper, and one year, three months, six months, and so on for forty years, and you have the gospel of any leader of any modern industry.

[200] (コミュニティにおける言語)

Translation has played a central (though often unrecognized) role in human interaction for thousands of years. When monarchs or ambassadors met on the international stage, there would invariably be interpreters present. But there are limits to what can be done in this way. The more a community is linguistically mixed, the less it can rely on individuals to ensure communication between different groups. In communities where only two or three languages are in contact, bilingualism (or trilingualism) is a possible solution, for most young children can acquire more than one language with unselfconscious ease. But in communities where there are many languages in contact, as in much of Africa and South-east Asia, such a natural solution does not readily apply.

[201] (ダンスの歴史)

Of all the uses of the body, none has reached greater heights, or has been more variably utilized by cultures than the dance. We can define dancing as culturally patterned sequences of nonverbal body movements that are purposeful, intentionally rhythmic, and have aesthetic value in the eyes of those for whom the dance is performing. Dance goes back many thousands of years, in all probability to Paleolithic times, for masked dancing sorcerers and hunters are depicted in the ancient caves of Europe and in the mountain ranges of South Africa. In fact, of all the human activities depicted in the caves, dancing is the second most prominent, right after hunting, with which it may well have been associated.

[202] (日本と西洋の個人と社会)

The human race is made up of individuals, but each is born and for the most part lives his life in a group context. Between various societies there can be great differences in the relative emphasis placed on the individual and the group. Certainly no difference is more significant between Japanese and Americans, or Westerners in general, than the greater Japanese tendency to emphasize the group, somewhat at the expense of the individual.

[203] (他者の必要性)

No one can live alone. We are dependent on the world of men and women of the present and the world of the past, for all that we have and are. This may be more clearly seen in the fact that any person becomes unhappy if long separated from other people. We all need the love and sympathy of others. Hardly any punishment is as severe as long-term solitary confinement.

[204] (ガンジーの学識の源)

Gandhi had a prolonged formal education, finally qualifying as a lawyer, but he received little formal instruction in those questions with which he became increasingly concerned, questions of moral and political philosophy, and of religion. It was imprisonment that provided Gandhi with one of the best opportunities for further reading. Indeed, for those entering the nationalist movement in the 1920s, prison was in a sense the nearest they came to going to a university. Gandhi was clearly widely read. Certainly no other influential Indian intellectual was as familiar as Gandhi was with the religious and philosophical texts of the classical Indian tradition as well as the writings of daring Western moralists of the nineteenth century.

[205] (定義の明確さ)

There are some ways of indicating the meaning of words. We may, for example, find it hard to make a suitable definition of the word "animal," so we say that an animal is such a thing

as a rabbit, dog, bird, and so forth. Similarly, we may say that religion is such a system as Christianity, Islam, Buddhism, etc. This way of indicating the meaning of a word by giving examples of what it includes is obviously of limited usefulness. If we indicated our use of the word “animal” as above, our hearers might, for example, be doubtful whether a frog or a whale was to be included in the class of animals. It is, however, a useful way of explaining a definition when the definition itself is definite without being easily understandable. If, for example, we explain what we mean by religion by saying: “A religion is a system of beliefs and practices connected with a spiritual world, such as Christianity, Islam, Buddhism, and so on,” we may succeed in making our meaning more clear than it would be if we were to give the definition alone.

[206] (コンピューターの急速な発展)

In the early days of computers it was feared that computers beyond a certain size and a certain speed would become useless because of the high probability of error. Even with the best technology available to the early designers of computers, the probability was very high that in millions of steps, using million of pieces of information, the computer would make at least one mistake which would ruin the result. These fears proved groundless. The reliability of electronic components has improved even more rapidly than the size and speed of machines, so that the probability of even a single error in an entire day of operations is much smaller today than it was thirty years ago.

[207] (討論の意義)

One of the greatest advantages of group discussion is that it provides more resources for problem-solving than are available when one person makes decisions about problems affecting a group. It is also valuable when two opposing views have been set forth and an “either-or” outcome is likely to happen. The introduction of new points of view may break the deadlock. Through group thinking and planning, ideas can be tested more adequately and dispassionately than they can when the group is under the strong influence of a convincing though sometimes short-sighted or self-interested speaker.

[208] (動物の生存競争と助け合い)

A struggle for existence inevitably follows from the high rate at which all organic beings tend to increase. As more individuals are produced than can possibly survive, there must in every case be a struggle for existence. As soon as we study animals, we at once perceive that though there is an immense amount of warfare and destruction going on amidst various species, and especially amidst various classes of animals, there is, at the same time, as much, or perhaps even more, of mutual aid and mutual defense amidst animals belonging to the same species or, at least, to the same society. Sociability is as much a law of nature as mutual struggle.

[209] (重力)

Gravity is the force that attracts all matter toward the center of the earth. You learned that the force of gravity on an object is measured by the weight of the object. If you weigh 100 pounds, you know that the earth is pulling down on you with a force of 100 pounds. Actually, gravity is a special example of a much more general phenomenon called gravitation. This force of gravitation exists between any two objects anywhere. The force of gravitation depends on the mass of the objects and the distance between them. The more massive an object is, the greater the force it exerts on a nearby object. When you stand near a large building, a force of gravitation exists between you and the building. The force in this case is too small to measure. The force of gravitation between you and the earth, however, can be measured it is your weight.

[210] (都市生活の精神的影響)

Those of us who live in towns have learned to adjust ourselves to some degree to the kind of overcrowding which seems to be an inevitable consequence of city life; but, the closer we are packed, the more easily resentful of each other do we tend to become. It is probably on this account that many people find life in cities irritating and exhausting, since they are compelled to control aggressive impulses which arise solely as a result of overcrowding. It is also probable that it is because of the wider spacing between individuals which is usual in the countryside that rural folk are less tense, more friendly, and often better mannered than urban people.

[211] (真理探究の科学)

The primary aim of science is to find truth, new truth. This search is the more successful the more it is directed towards finding truth for its own sake, regardless of its possible practical use or application. All the same, new truth and knowledge always elevate human life and most usually find practical application. As a rule, the deeper and more fundamental a new truth, the greater and more important will be its practical possibilities. In fact everything we have, including life itself, we owe to science, to research. If everything given to us by research were to be taken away, civilization would collapse and we would stand naked, searching for caves again.

[212] (話し方の流暢さ)

Speech sounds stranger the more we attend to it, for there is an opposite relationship between conscious awareness of speaking and its fluency and creativity. The more we think about how to speak, the worse we speak. This is why learning to speak a foreign language is so difficult. Most of us acquire the sounds of a second language only with conscious effort and deliberate practice, but it is our very consciousness and deliberateness that prevent our fluency. We concentrate so hard on rules of pronunciation or grammar that we can think of nothing else. Only when we can produce odd foreign sounds automatically, or without concern for accuracy, do we begin to feel that we can speak fluently. Speaking is

like swimming or bicycling. The more we consciously attend to it, the less perfectly we do it.

[213] (科学技術への抵抗)

Unfortunately, for the past century some humanists have been at odds with technologists, viewing technology as a harmful force beyond their control all the more intolerable because of its human origins. This attitude is part of the humanist's traditional focus on the past and unwillingness to embrace either the art or technology of the present.

[214] (新しい革命)

In the eighteenth century the word 'revolution' came to have a new meaning. Traditionally it meant only a change in the composition of government and not necessarily a violent one. Men could speak of a 'revolution' occurring at a particular court when one minister replaced another. After 1789 this changed. Men came to see that year as the beginning of a new sort of revolution, characterized by violence, by limitless possibilities for fundamental change, social, political and economic, and began to think, too, that this new phenomenon might transcend national boundaries and have something universal and general about it. Men who disagreed very much about the desirability of such a revolution could none the less agree that this new sort of revolution existed and that it was fundamental to the politics of their age.

[215] (動物と人間は似ているか)

The first thing to be said about animals is that we should be cautious in drawing lessons from them to explain our own behavior, given the mediating force of culture and our capacity for reflection. "Our kinship with other animals does not mean that if their behavior seems often to be under the influence of instincts, this must necessarily also be the case in humans," says an anthropologist. He quotes one authority who has written: "There is no more reason to believe that man fights wars because fish or beavers are territorial than to think that man can fly because bats have wings."

[216] (心にとって読むこととは)

Reading is to the mind what food is to the body. If you try to do without it, you simply cannot. On the other hand, if you try to read more than your system can absorb, you can easily lose your appetite for reading. You must remember, therefore, that your mind is no less sensitive to injury than your body. With the recent flourishing of mass culture, it is becoming increasingly difficult for us to find proper nourishment for our own minds. Indeed, we are faced with the danger of mental starvation in the midst of affluence.

[217] (科学技術と家での労働)

Although a lot of advances have been made in household technology, the amount of time spent on domestic tasks has not declined very much over the last fifty years. What has changed, however, is the distribution of tasks; the amount of time spent on cleaning and cooking has decreased but time spent on childcare has increased. There has been some

reduction in time spent on housework for working women, but this is less the result of technological advance than the simple fact of women being employed outside the home. It has been suggested that possibly technology has been used as a substitute for a more equal division of labor at home.

[218] (ジェネレーション・ギャップ)

The social experiences and values of the old and the young have always been in conflict; if younger people did not question the advice and beliefs of their parents, little change or 'progress' would ever occur. But with the accelerating speed of change in modern times, the conflicts between members of different generations, or between those people anxious to adjust to change and those less inclined to do so, were in danger of becoming more harmful than helpful. Furthermore, the very phrase by which these conflicts are described, the 'generation gap', was becoming out of date.

[219] (占星学)

It is commonly believed that because we live in a modern age, in societies that benefit from highly sophisticated scientific and technological innovations, we are no longer susceptible to primitive superstition. Indications are, however, nothing could be further from the truth. Perhaps the most widespread form of primitive superstition in both the United States and Japan is astrology. Astrology is a pseudo-science based on ancient beliefs, in which the moon, sun and stars are thought to influence human affairs, and even the future in ways that a specialist may predict for a fee.

[220] (経済的相互依存)

Nothing has done as much as the energy crisis to convince Americans that the economic interdependence of the world is real and that it includes the United States. Nothing has done as much to convince Americans that our standard of living, so much higher than that of the rest of the world, is at the mercy of the rest of the world. In short, nothing has done as much to convince Americans of the vulnerability of the United States. That goes a long way toward making world government seem less of a dirty phrase, since it is now obvious that we may have as much to gain from a globally-organized economy as to give to it.

第 12 章 同格構文に注意する

[221] (人間を駆り立てる探検)

Exploration, the adventure of journeying into the unknown, is among the most fascinating of human endeavors. In search of trade routes and legendary lands, explorers crossed vast oceans, journeyed through high mountain ranges and endured the harshest conditions of nature to achieve their goals. From ancient mariners to modern astronauts, curiosity about the world has driven explorers over dangerous lands, across immense seas, and into the darkness of space.

[222] (フロイトの夢分析)

Sigmund Freud, a Viennese physician and pioneer in analyzing the human mind, rescued the study of dreams from the mysterious and supernatural. In *The Interpretation of Dreams*, published in 1900, Freud suggested that dreams occur when feelings and ideas unacceptable to the individual threaten to disturb his sleep. He believed that the conscious mind tries to sleep at night. At the same time, the unconscious mind, the storehouse of feelings and ideas that the individual has apparently forgotten, tries to release some of its deep-seated hatreds, angers, and frustrations. Freud conceived of dreams as a safety valve, a compromise between the body's need to rest and the unconscious mind's need to release some of its tensions.

[223] (文字の効能)

After the invention of writing, it was possible to collect, integrate and utilize accumulated wisdom of all times and peoples; humans were no longer restricted to what they and their immediate acquaintances could remember. Literacy gives us access to the greatest and most influential minds in history: Socrates, say, or Newton have had audiences vastly larger than the total number of people either met in his whole lifetime. The repeated rendering of an oral tradition over many generations inevitably leads to errors in transmission and the gradual loss of the original content, a degradation of information that occurs far more slowly with the successive reprinting of written accounts.

[224] (言語習得の研究)

'Acquiring a language' involves two distinct skills; the ability to produce speech in a spontaneous way; and the ability to understand the speech of others. The former is relatively easy to study: all we have to do is turn a tape recorder on, and analyze what comes out. Research into speech comprehension is far more difficult because we need to take into account not only what is spoken to the child, but the situation in which it is uttered, and the child's prior knowledge of the world.

[225] (科学技術は諸刃の剣)

The world today is not a particularly happy place. There are many tensions and problems. There are the problems of environmental pollution, which are very serious indeed. There is potential disaster through warfare, nuclear warfare that could have dramatic consequences in terms of the survival of our species. It would be ironic, indeed, if our species were to become extinct simply as a result of the misuse of the very technology that in the first place gave us success. It was technology, our cooperation and all the things which are human that brought us through to this point, and it is those same things that could ultimately lead to the extinction of our species.

[226] (日本人にとっての外国文化)

To the Japanese, a "foreign culture" has always represented something elegant and

superior to their own, a pleasant ornament to wear, a useful accessory to adopt. Since it was never forced on them by foreign invaders, they felt that they could choose to accept or reject as they pleased. As a result, they have developed a certain attitude toward things foreign, an attitude that gives varying impressions to outsiders. The ease with which they adopt foreign customs while abandoning their own, irrespective of whether what is abandoned is worth preserving, gives the impression that they are terribly naive and careless about their destiny.

[227] (人間の言語能力)

Good speech is the outcome of education and training always and everywhere, even in primitive and unsophisticated societies. Man does not learn to speak well by instinct as he learns to breathe, to eat and drink, or to walk. His superiority over bird and beast comes from his almost limitless educability, his individual power of adjustment, his adaptability, and his ability to store up wisdom and hand it on from generation to generation. Brain and voice developed together. The factors that contributed to his physiological growth also led to the evolution of language. The assumption of an upright posture, freeing of hands and arms, severance of the tongue from the throat, development of three-dimensional vision, emergence of the entire frontal area of the brain all these led to new powers of perception and gave rise to that faculty of symbolization which has made man what he is.

[228] (言語の構造)

Traditional grammar was developed on the basis of Greek and Latin, and it was subsequently applied, with minimal modifications and often uncritically, to the description of a large number of other languages. But there are many languages which, in certain respects at least, are strikingly different in structure from Latin, Greek and the more familiar languages of Europe such as French, English and German. One of the principal aims of modern linguistics has therefore been to construct a theory of grammar which is more general than the traditional theory one that is appropriate for the description of all human languages and is not biased in favor of those languages which are similar in their grammatical structure to Greek and Latin.

[229] (伝統からの脱出)

A woman embarking on a spiritual journey travels a path on which there are few sure guides to inspire and affirm her. The institutions and traditions we are heirs to have been primarily formulated, structured and maintained by men, with their own vision and application of spirituality. Each of these authorities offers a sanctioned pathway to living and being. Each pathway has its own expectations, values and models to strive for. There is an underlying message common to all of these voices to conform is to be offered safety, acceptance and, most of all, love. To step outside of these institutions is to lose approval and shelter, and to be alone.

[230] (文学鑑賞の困難さ)

No subject can be more bewildering to the advanced learner of English than “Literary Appreciation”. Even when the student is writing in his mother-tongue and reading literature by authors whose work may be familiar to him, appreciation is often a difficult task. When the student is faced with literature in a foreign language the problem becomes all the more acute. He is in command of a relatively limited vocabulary and yet is required to comment intelligently on works which may tax his powers of comprehension to the utmost. Furthermore, a certain vagueness surrounds the whole subject: the student frequently does not know what to say about a piece of writing he has read. He may succeed in enjoying and understanding a poem or a novel, but the necessity to explain why he has enjoyed it is usually far beyond his powers.

[231] (絵を描く才能)

Ability to draw a realistic image of a perceived form is a rare skill among American adults and indeed among adults from many cultures throughout the world. American children begin around age nine or ten to proclaim that they can't draw and their lack of skill proves that they have no talent for drawing. These children become the adults who say they can't draw at all, not even a straight line. A widespread assumption about drawing ability is reflected in the children's proclamations: that skill in drawing depends on the inheritance of talent. Since most teachers share this assumption, art classes have as a main goal the possible discovery of talented students, who are expected to be very few in number.

[232] (宣伝の真偽)

Advertising informs us about all kinds of new products available on the market. It very often, however, tells us less than the complete truth, by showing us the products' benefits but hiding their disadvantages. Advertising not only leads us to buy things that we don't need and can't afford, but it also confuses our sense of reality. ‘This toothpaste gives you white teeth,’ the advertisement tells us. But it doesn't tell us the whole truth: that a healthy diet and good toothbrush will also have the same effect.

[233] (写真の登場)

For the general public, the birth of photography was a miracle: for the first time people of modest means could afford to have their faces and the main events of their lives recorded for future generations a privilege that had been hitherto reserved for the wealthy, who could have themselves painted and displayed in gold frames. Photography was quick and cheap. It was well worth sitting motionless, unblinking and preferably without breathing for thirty or forty seconds, to be captured in one's Sunday best, leaning solemnly against a half-column of imitation marble. There is no question, when one sees a portrait taken at the turn of the century or before, that both photographer and sitter took the matter very seriously.

[234] (時間のとらえ方)

People of the Western world, particularly Americans, tend to think of time as something fixed in nature, something around us from which we cannot escape, an ever-present part of the environment, just like the air we breathe. That it might be experienced in any other way seems unnatural and strange, a feeling which is rarely modified even when we begin to discover how really differently it is handled by some other people. Within the West itself certain cultures rank time much lower in over-all importance than we do. In Mexico one commonly hears the expression, "Our time or your time?"

[235] (イギリスの支配形態の秘密)

England is one of the last remaining countries to cling to the outward forms of feudalism. Titles are maintained and new ones are constantly created, and the House of Lords, consisting mainly of hereditary peers, has real powers. At the same time England has no real aristocracy. The race difference on which aristocratic rule is usually founded was disappearing by the end of the Middle Ages, and the famous medieval families have almost completely vanished. The so-called old families are those that grew rich in the sixteenth, seventeenth, and eighteenth centuries. Moreover, the notion that nobility exists in its own right, that you can be a nobleman even if you are poor, was already dying out in the age of Elizabeth I. And yet, curiously enough, the English ruling class has never developed into a bourgeoisie plain and simple. It has never become purely urban or frankly commercial.

[236] (日英の産業化の始まり)

Many seem to assume that the Meiji Restoration was the start for Japan's progress to modern industrialization, that Japan before the 1860's was still very backward. But some point out that the Tokugawa feudal era saw significant progress in creating the basis for the latter industrialization. During Tokugawa, Japan developed efficient agriculture and handicraft industries. Indeed there were important similarities between progress in Britain and in Japan. Even though the two countries had little to do with each other at the time, Britain's industrial revolution did not happen by accident. It too was the result of an earlier feudalistic progress very similar to that in pre-Meiji Japan.

[237] (日本人のコミュニケーション)

When we speak to someone and they understand us, it is easy to take for granted the process of interpersonal communication. When the process breaks down when messages are not easily understood, or when our listeners derives a different impression than what we intended then there arises a need for analyzing the situation. Since Japan has had a relatively unified and stable language and culture from ancient times, there was little need for Japanese to think self-consciously about how communication works. In fact, some scholars would go so far as to say that there was very little "communication" in the sense of two-way interaction; much of Japan's verbal interaction was simply the superior person speaking and the inferior listening and obeying.

[238] (辞書の限界)

The dictionary does more than record. It also guides, perhaps nearly dictates. It informs anyone who uses it of the meanings which are generally attached to words, and therefore informs readers, especially students, how they should use the word in future if they want to make themselves clearly understood. Changes, usually gradual ones, are taking place the whole time, however, in the ways in which words are used. These changes are seldom deliberate, they may be due to a failure of education, to ignorance or stupidity, but once they have taken place, once it has become the general practice to use a word with a new, slightly changed meaning, all the editor of the dictionary can do is to record these changes.

[239] (環境問題)

Many of the most compelling international issues of today are environmental. The warming of the earth caused by the production of carbon dioxide, the destruction of forests by acid rain, pollution of rivers and oceans, uncontrolled desertification, the destruction of the protective ozone layer by the chemicals in sprays these are just some of the problems under discussion among scientists, government officials and environmentalists, and in the media. The collective awareness is rapidly growing that the global environment can only be protected for the coming century through genuine international cooperation. But this will require some radical rethinking on a fundamental level.

[240] (日常生活と大気汚染)

It is difficult to consciously accept the fact that when we use gas and electricity in our homes, we are polluting the air. But the fact remains many of our activities around the home contribute to pollution. Over 85 percent of electrical power around the world is supplied by fuels including gas, oil and coal and burning such fuels is a primary cause of air pollution. Nuclear power supplies the remaining 15 percent of the world's electricity, and its destructive power is well known.

第 13 章 共通関係に注意する

[241] (アメリカの教育の特徴)

Because of the belief that all Americans need an education that allows them to become self-sufficient, contributing members of a democratic society, schools have always given serious attention to students who are at risk of failure. Special programs for providing extra help in critical subjects and skills have been a feature of American schools for at least half a century.

[242] (日本のイメージと現実)

Most foreigners are surprised by what they find when they come into contact with Japan for the first time. Japan has a bad image abroad. The country is seen as an overcrowded place where concern with technology and material progress has overwhelmed the more

gracious aspects of life. And so it is a pleasant discovery for many visitors to encounter a gentle, tranquil people who place great emphasis on preserving their centuries-old traditions and have a highly developed sense of beauty.

[243] (ストレス)

Stress is not only a problem for people living a highly pressured life. Those who suffer excessive monotony, boredom, or frustration because of insufficient stimulus or challenge also become ill frequently. This can be through lack of excitement in life or as a result of the anger or anxiety they feel at having little control over how they live and work. The boredom, envy, and loss of self-esteem that result from unemployment are also common sources of stress today.

[244] (文化とは何か)

Culture primarily refers to the habits, beliefs, customs, relationships and general way of behaving of any group of people who have a culture in common. If any group of people, be it a tribe or a nation, behave in a uniform manner then there is a definite culture. Some cultures may have a lot in common but others may be totally different. In general, the older the culture the more likely it is to be distinct.

[245] (物理学の法則)

Both experiment, the observation of phenomena under conditions that are controlled as precisely as possible, and theory, the formulation of a unified conceptual framework, play essential and complementary roles in the advancement of physics. Physical experiments result in measurements, which are compared with the outcome predicted by theory. A theory that reliably predicts the results of experiments to which it is applicable is said to embody a law of physics. However, a law is always subject to modification, replacement, or restriction to a more limited domain, if a later experiment makes it necessary.

[246] (学習する動物)

It is only quite recently that scientists have begun to observe the normal behaviours of wild animals with real care, and the results have been surprising. It has become apparent that the classical distinction between animal behaviour which is governed by inborn instinct and human behaviour which is governed by reason and learning must be abandoned. Animals, too, can learn and in some cases they can pass on what they learn. Indeed in the long run learned behaviour can even have consequences for physical evolution.

[247] (空想科学小説)

Science fiction is a relatively recent branch of popular literature, since the scientific elements on which it is based are themselves recent. Only after it was generally agreed during the eighteenth century that science was an important influence on society, could science's relation to the future be written about. To the nineteenth century science was an imaginatively exciting and somewhat disturbing element of life; what the future might be,

or what the present ought to be, in the light of science's ability to change things, fascinated the thinkers of the age. Fiction of fantasy that is, of the unexplained impossibility is of course as old as fairy tale and myth. Fiction of science of the explicable possibility depended on the post-Newtonian world's faith in science's ability to explain and shape experience.

[248] (現代の偏見)

The tendency to look for some outside group to blame for our misfortunes is certainly common and it is often sustained by social pressures. There seems to be little doubt that one of the principal causes of prejudice is fear: in particular the fear that the interests of our own group are going to be endangered by the actions of another. This is less likely to be the case in a stable, relatively unchanging society in which the members of different social and occupational groups know what to expect of each other, and know what to expect for themselves. In times of rapid social and economic change, however, new occupations and new social roles appear, and people start looking jealously at each other to see whether their own group is being left behind.

[249] (言語とその話者)

Estimating the number of speakers of a living language is, if anything, more complicated than estimating the number of languages. Any language which continues to be spoken in an area counts as 'one' in our language total. But the number of its speakers may vary wildly, from one decade to the next. A contemporary example is Vietnamese, where the movements of population since the Vietnam War have led to dramatic differences, in both the total number of speakers and the places they are to be found. An even more recent example is the massive changes that have affected people in Ethiopia and the surrounding regions during the famine of the early 1980s. The combined effects of large-scale loss of life, refugee migrations, and local government policies to relocate people mean that all estimates are now seriously out of date.

[250] (非行への対処と病気への対処)

Cries and misbehavior from children and adolescents are, in a way, very much like a sore throat, stuffed-up nose, aching muscles or a fever. All are symptoms. All are causes. A medical practitioner knows that when the virus or bacteria that is causing physical symptoms is eliminated, the unpleasant feelings will be reduced. Similarly, when parents correctly identify and provide remedies that address the needs of children and adolescents, the symptoms of crying or misbehavior will also disappear.

[251] (水の消費)

Agriculture is by far the largest consumer of water, swallowing 60 percent of global consumption. While many believe irrigation a modern necessity, inefficient systems lead to a 40 - 60 percent evaporation. Industry accounts for 32 percent of global water consumption. Often used for cooling, much of the water can be treated and recycled, but in most cases is

drained as waste. The last eight percent of water consumption is used for municipal and domestic purposes and demands the highest purity level.

[252] (英国の支配階級)

For many hundreds of years Britain had been ruled by a tiny elite who owned most of the wealth, made all the important decisions and exercised exclusive class power. It was not to be expected that this privileged position would be surrendered easily, and despite the industrial revolution and the widening of the franchise the aristocracy continued to dominate political and social life until the end of the nineteenth century.

[253] (科学教育の理念と現実)

The old humanistic faith conceived science, together with mathematics, to be almost as readily accessible to understanding and interest as literature and history. The belief that the fully developed man must have, and would want to have, some knowledge of science and mathematics was until recently taken for granted in the American theory of higher education and was implemented in the requirements of the curriculum. These requirements, it is well known, are undergoing severe friction and in many colleges have been abolished. No successful method of instruction has been found, and the need for finding one no longer seems pressing, which can give a comprehension of science in its present state of development to those students who are not professionally committed to its mastery and especially endowed to achieve it.

[254] (科学の原理)

Science rests ultimately on a set of assumptions, usually called axioms. These are statements, such as that the universe is infinite in all directions; or that science studied on the planet Earth will yield exactly the same results in the same circumstances in any other part of the universe. The truth of axioms like these is impossible to prove, but one of the objectives of science is, or should be, to keep them under continuous review. The concept of time, for example, was implicitly thought until this century to be the same for any observer, anywhere, but Einstein showed that time was strictly a local matter. The axioms of constant time were shattered as soon as Einstein's theory had been accepted.

[255] (環境の知性への影響)

Imagine now that we take two identical twins and put them in different environments. We might send one, for example, to a university and the other to a factory where the work is boring. We would soon find differences in intelligence developing, and this indicates that environment as well as birth plays a part. This conclusion is also suggested by the fact that people who live in close contact with each other, but who are not related at all, are likely to have similar degrees of intelligence.

[256] (ヨーロッパ人の自然礼賛)

It is a curious fact that enthusiasm for country life and love of natural scenery are

strongest and most widely diffused precisely in those European countries which have the worst climate and where the search for the picturesque involves the greatest discomfort. Nature worship increases in an exact ratio with distance from the Mediterranean (i.e. the Sea which separates Europe from Africa). The Italians and the Spanish have next to no interest in nature for its own sake. The French feel a certain affection for the country, but not enough to make them desire to live in it if they can possibly inhabit the town. The south Germans and Swiss form an apparent exception to the rule. They live nearer to the Mediterranean than the Parisians, and yet they are fonder of the country.

[257] (女性運動の目標)

On the Women's Liberation Movement's ultimate goal all women are united. They demand an end to the male superiority which, they feel, dominates almost every aspect of their daily lives, from the government of their country to the organization of their religion and the structure of their families. They aim to overthrow the traditions of centuries which subtly indoctrinate girls, from early childhood, with the philosophy that their role in life is subordinate; that personal fulfillment depends less upon the development of their own potential than the choice of man they marry; that beauty is desirable and brains an embarrassment.

[258] (人間は自然の主人か)

In relation to nature, early man was so weak and nature so strong as to make man almost her slave. It was natural, therefore, that he should have dreamed of a future in which their relative positions would be reversed, a time when he would be the master and nature the slave. We have already reached the point where there is almost nothing we cannot compel nature to do, but we are finding to our cost that nature cannot be enslaved without enslaving ourselves.

[259] (人間とコミュニケーション)

Human beings are talkative creatures and always have been, so far as we can see. It was our urge to communicate with each other and growing ability to do so that was probably the chief factor in the development that made us different from all other animals. Leading anthropologists are now of the opinion that it was not so much aggressiveness as ability to co-operate that gave the earliest forms of man a superiority over others of the ape family, and cooperation entails communication.

[260] (アメリカにおけるビジネスと自由)

A contrast is often made between business, which is competitive, and government, which is a monopoly. Because business is competitive, many Americans believe that it is more supportive of freedom than government, even though government leaders are elected by the people and business leaders are not. Many Americans believe, then, that competition is as important, or even more important, than democracy in preserving freedom. So closely is competitive business associated with freedom in the minds of most Americans that the

term “free enterprise” rather than the term “capitalism” is most often used to describe the American business system.

第 14 章 仮定法、挿入構文に注意する

[261] (習慣の力)

Cultural habits save time by enabling us to perform our customary roles without thinking. If we had unlimited choice in table manners, clothes, marriage arrangements, and so on, each act would require a consideration of facts, a decision, and probably quite a few changes of mind. But, unfortunately or not, our freedom of choice is not unlimited. We can decide whether to go to church on a fine Sunday morning or to play golf instead; once the decision is made, however, our behavior in church, or on the golf course, is largely predictable. It is unlikely, for example, that anyone attending church will get up and begin to argue with the minister. As a result, a social scientist can predict what most people will do in a familiar situation even though he can never be sure what a single individual will do.

[262] (言語の恣意性)

In language there is no necessary connection between a linguistic form and that which is signified by it. There is no particular reason, other than convention, why the combination of sounds “snake” should stand for a notion of “limbless reptile.” The notion itself does not determine the sounds we use to signify it. If this were the case, all languages would settle on the same sound group to signify equivalent notions, which they clearly do not: “snake” in German, for example, is “*Schlange*,” and in Polish “*waz*” both of which are quite remote in pronunciation from each other and from the English. Thus, even though a word may sound particularly appropriate to us, it is none the less only by convention that it carries its particular meaning. The link between the sound and meaning is for the most part quite arbitrary.

[263] (言語表現の限界)

Languages, when it is used to convey information about facts, is always an abbreviation for a richer conceptualization. We know more about objects, events and people than we are ever fully able to express in words. Consider the difficulty of saying all you know about the familiar face of a friend. The fact is that your best effort would probably fail to convey enough information to enable someone else to single out your friend in a large crowd. This simply illustrates the fact that you know more than you are able to say.

[264] (働く動機)

A prudent employer would take the time to analyze the incentives workers might list as their reasons for working and most importantly, the order in which they list them. A recent study disclosed that money was number seven on such a list. Topping it was satisfaction in performing the job. Obviously, that good feeling one gets from having

accomplished something is still the best reward for hard labor. But workers also need to know they are doing their job well, and the major deficiency within management today is the failure of telling them so.

[265] (英語の文字と音)

English has an imperfect relationship between sight and sound. Our alphabet contains 26 letters; 'standard' British English has over 40 sounds, with dialects and non-British speech adding more. By a kind of working agreement, developed over hundreds of years, we assume that every word in the dictionary can be pronounced and that every word used in speech can be spelt. A feeling that all is not quite well comes when we try to pronounce an unfamiliar word found in writing. There cannot be a regular and consistent correspondent between letters and sounds in English, although some languages with fewer spoken sounds come very close to such consistency. No attempt to reform our spelling on phonetic lines could succeed without the addition of a number of new letters. Further, until all English-speaking people pronounce words in the same way, any phonetic rendering would create difficulties faster than it solved them.

[266] (うまく会話をこなすには)

To converse well, either with another person or with a crowd, it is vitally necessary to feel relaxed and comfortably at ease. Many intelligent people have thought themselves slow and dull because they could not produce witty remarks in rapid succession as their companions seemed able to do. This is often because of a pang of embarrassment or self-consciousness, which is akin to stage fright. Feeling a little uncomfortable and ill at ease in the presence of others, one finds his mind won't work right. It simply refuses to come up with the bright remark or the lively comeback that would have found so beautiful a place in the conversation.

[267] (人間の力)

Our knowledge of the life of men of the Old Stone Age is necessarily scant and man's conquest of the earth moved slowly, for there was much to learn. Man is a weak and poorly endowed creature as far as his physical body is concerned and his survival depended on the use of his brain and his hands. To compensate for his thin-skinned and furless body and for his lack of powerful teeth, horns, hooves, or sheer body size and strength, he had to discover ways to outwit the physically more powerful animals. He had to invent tools and weapons that would enable him to kill animals larger than himself, and to learn to use fire not only for warmth but to cook substances that otherwise would have been inedible.

[268] (予想せずにはいられない)

Life would be impossible unless we assume that most things are predictable. At a crossing we have to predict that other cars will stop when the red light is against them, otherwise we should never be able to drive. We predict that people's behavior will fall within our expectations which are based on their usual behavior. A manufacturer has to predict the

cost of producing an item in order to arrive at a selling price. This prediction is quite easy if everything is stable and only machines are involved, but is made more difficult if he has to predict the price of raw materials and labor as well as the productivity of the labor. Even if he only uses machines, he predicts that they will go on working.

[269] (言葉の目的)

A misunderstanding may occur because we fail to grasp the meaning of a word, or the thought which is expressed in a sentence. But sometimes communication fails because we misunderstand the purpose of speech. The most typical form of this mistake is to treat every use of language as if it were intended to give information. For example, many people read a poem as if it were a science report. This is wrong, obviously. The aim of the scientist is to state facts correctly, but that is not the poet's aim. He may be trying to create a mood, or a state of feeling, or an attitude toward his subject: he may not care about facts in the scientific sense.

[270] (科学と技術)

Technology is closely linked to science. In current usage it is common to speak of "science and technology" as if they were virtually synonymous. This, however, is misleading, because they represent distinctly separate things. While technology is concerned with making and doing things, science is concerned with the systematic understanding of men and women in their environment. Human beings could begin to make and do things long before they had more than the most partial and primitive explanations of the materials at their disposal, so that technology is much older than science. Science in a recognizable form as an understanding of men and women in their environment achieved by a systematic explanation is only as old as civilization a mere four or five thousand years because it was only in civilized communities that the techniques of reading, writing, and arithmetic came into existence to permit accurate measurement and recording, thus laying the basis of all scientific examinations.

[271] (忍耐と辛抱)

Patience and perseverance, we are taught at an early age, are necessary to achieve our goals and objectives. Expressions such as "get hold of yourself" are common. We use them as tools to overcome frustration and keep from losing our temper. They permit us to play a role and behave in a socially acceptable manner. People who are angry, frustrated, or otherwise apprehensive have consequently learned to partially disguise their emotions through the use of various gestures.

[272] (格言)

So basic is food to a culture that every society will have a rich storehouse of old sayings related to foods. These provide us with a good starting point when we want to interpret a culture. In so doing we must ask ourselves what assumptions are expressed in those old sayings and, not to be ignored, the extent to which the old saying applies to modern life.

Old sayings, we must remember, are not always retired when they can no longer render service.

[273] (日本の産業構造)

Japan's skill at group cooperation in the field of modern industry is also of particular significance to the other advanced industrial nations, which for the most part are having greater difficulties in this area. Instead of being the scene of clashes between owners and managers on the one side and workers on the other, as is the traditional pattern elsewhere, Japanese factories and businesses are organized more as joint communities of workers and managers, who cooperate smoothly together for the benefit of both, as well as for the benefit of the owners and the nation as a whole. This is a pattern which the countries of the West envy and seek to imitate in so far as they can in their own industrial systems.

[274] (人間の行動の特徴)

Human beings, unlike animals, can perceive a problem at the start and formulate a plan of attack. Their movements, though they may follow the trial-and-error method, are directed more surely to the goal. But, like animals, human beings learn doing. A man can learn to use a hammer without any instruction whatever, although instruction may speed up his progress toward skill. Human superiority depends on observing as well as doing; few if any animals are capable of true observation prior to performing an act. An animal cannot benefit by watching another animal perform a trick, but a human being readily profits by example.

[275] (核兵器を使う権利)

One of the dreadful things about nuclear weapons is that, if they are employed on a large scale, they will do immense harm, not only to the belligerents, but also to neutrals. The neutrals have, therefore, the elementary right of self-preservation in trying to prevent a nuclear war. Whatever right a country may have to preserve its own form of government in the face of foreign opposition, it cannot, with any justice, claim the right to exterminate many millions in countries which wish to keep out of the quarrel. How can it be maintained that, because many of us dislike Communism, we have a right to inflict death on innumerable inhabitants of India and Africa who wish only to be let alone? Can it be maintained that this is democracy? Would not democracy demand that uncommitted nations should not be involved without their own consent?

[276] (発酵の原理)

The production of wine was a big industry in France, and the fermentation of the grapes was a matter of serious concern. But the conditions under which fermentation took place were not understood, and letting nature take its course might result in sour wine or no wine. Pasteur made a detailed study of the wine industry, and stated his belief, as a result of careful and extensive investigations, that all changes of materials in nature are caused by various kinds of organisms, too small to be seen except with a microscope.

[277] (闘争時の心理)

When a community begins to feel unsure of its future, it becomes especially liable to turn in upon itself, to imagine that surrounding groups are threatening and hostile. At a time like this, distorted ideas about the other community are readily believed and are passed on as statements of fact. One of the tragic things about intercommunal strife is that both parties quickly find themselves believing the worst about each other. And, at the same time, by a process which we might call 'moral rationalisation', each of the opponents insists and believes that its own actions are inspired by lofty ideals, even when they are really acting out of pure self-interest. To a third party, neutral to the dispute, it may seem obvious that both are behaving unreasonably; but when one's emotions are involved, and especially the emotion of fear, it is extremely difficult to remain rational.

[278] (身体と精神の成熟)

One of the most tragic facts, if not the most tragic, of human existence, is that while physical maturity for normal people develops naturally and automatically with the passage of time and normal consumption of food, mental maturity does not come so easily. A large number of people who have the physical maturity and age of adults and are thus in possession of adult status and privileges, are not mentally mature. This is rather unfortunate, for as the author of *The Mature Mind* observes, "The most dangerous members of our society are those grown-ups whose powers of influence are adult but whose motives and responses are childish."

[279] (優柔不断の原因)

If you are indecisive and plan to do something about it, you can take immediate comfort in the fact that indecision is not necessarily due to ignorance and slow thinking. On the contrary it is often thinking of so many things and consideration of so many doubts that result in the difficulty to reach and act on a simple decision. The more intelligent you are, the more you may be inclined to consider rapidly many factors before making a decision. If you were feeble-minded, you would have little or no difficulty, for you wouldn't be able to think of a variety of possible consequences. Your difficulty may be that you have acquired the habit of applying to a multitude of little, unimportant things the same serious consideration you might advisedly give to vital matters.

[280] (人間の発達のプロセスを探るには)

There is one way in which the obscurity of man's early development may be partly overcome. That is commonly used in all the sciences: deducing from the observed facts the unseen or unrecorded context. Thus if one finds a shell-fish hook embedded in a datable site, one may infer, from that bit of evidence alone, not only the existence of water, even if the stream bed or lake has dried up, but likewise the presence of human beings who included fish in their diet, who selected the shell and shaped the hook after a model that could exist only in their own mind, who were ingenious enough to use guts or plant fiber for

line, and who were sufficiently patient and skillful to catch fish by this method. Although various other animals, and birds, eat fish, no other species than the humans uses a hook.

第 15 章 英文和訳問題演習 下線部を和訳せよ

[281] (重力と表面力)

We are prisoners of the sense we have about the world because of our size, and rarely recognize how different the world must appear to small animals. Since our relative surface area is so small at our large size, we are ruled by the forces of gravity acting upon our weight. But gravity means next to nothing to very small animals with high surface-to-volume ratios; they live in a world of surface forces and judge the pleasures and dangers of their surroundings in ways foreign to our experience. An insect performs no miracle in walking up a wall or upon the surface of a pond; the small force of gravity pulling it down or under is easily overcome by surface forces which act to keep it in position. Throw an insect off the roof and it floats gently down as the forces of friction from the air acting upon its surface overcome the weak influence of gravity.

[282] (偉人の内なる尋常さ)

All great men must be viewed in two distinct aspects. There is the limited aspect in which they are great, and there is the other aspect in which they are ordinary human beings like the rest of us. No great man lives constantly on the level of his vision. Like the rest of us, in their daily lives all are largely preoccupied with petty concerns; they are prone to be moved by jealousy or bad temper, to say foolish things, to act meanly, and to behave inconsiderately toward those who are close to them. Our need for heroes to worship, however, generally makes us disregard or deny what is ordinary in a great man. For the man as he was we substitute, sometimes while he is still alive, a legend.

[283] (時間尺度の変化と歴史学)

Time scales have changed dramatically in the twentieth century. The biggest changes in our interpretation of the distant past have taken place within the last twenty years as new schemes of dating, new discoveries of material remains and new evaluations of evidence have come so fast that earlier surveys have been rapidly outdated. It is through our late-twentieth-century sense of time and space, so different from that of previous centuries in that it is governed by science, that we now step backwards and reach out to our most remote ancestors. This does not mean that we should ignore the journeys of past explorers of history when we make our own journey through time, for the social historian learns much about social history from out-of-date and discarded explanations.

[284] (富と教育)

In some developing countries, the proportion of children who go to school between the ages of five and fifteen is as low as twenty percent. In the northern and western United States and north-west Europe the proportion is virtually one hundred percent. The connection

between wealth and education opportunity is a close one. It is a two-way relationship: partly the wealthy nations can afford to spend a great deal on education, but partly their wealth itself depends upon the fact that they have a highly educated labor force at their disposal, and the research and development conducted in their universities and colleges is a fundamental part of their economic growth.

[285] (今世紀の課題)

No nation has the perfect model of development nor the ideal culture for export. Let each and all of us do our work with diligence, honesty, and generosity according to priorities and long term thinking, sharing all knowledge for the creation of spiritual and material wealth. It is in what is left of this century that we must come to terms with our environment and life as human beings. We must put to use all our wisdom and resources to enhance and preserve nature, lessen poverty and hunger and end all wars, with the exceptions of the permanent battle against degradation of social values and needless suffering.

[286] (エコノミック・アニマル)

Even before France's Prime Minister, Edith Cresson, declared the Japanese relentless "economic animals" seeking to "dominate the world" with their workaholic habits, a half-hearted campaign began here to convince the country to relax. To a younger generation that questions the merits of working 9-to-9 and then drinking with colleagues until the last train home, the new push for shorter hours and longer vacation is welcome. To many over 50 it is evidence that the tough stuff that made Japan a greater competitor is lost.

[287] (環境破壊の真の原因)

It is still generally believed that the threat to environment and ecology is confined to the developed countries and is indeed, a result of industrialization, of the automobile, of affluence. But the greatest ecological catastrophe in the making and the one most difficult to contain, let alone to reverse is the destruction of the world's tropical forests by the least advanced, the least developed, the poorest inhabitants of the earth: destitute peasants using primitive methods and age-old tools. And no one voices any longer the dogmatic assertion that 'pollution' is a product of capitalism and cannot happen under socialism; it was an article of the communist faith only a few years ago.

[288] (ひよこの序列)

When chicks are reared together, fighting develops about the fourth week of age. When they are about ten to twelve weeks old, the weaker or less determined chicks have learned to avoid the stronger or fiercer, and all of them can be arranged in a straight rank order, from the most dominant to the most submissive. But this does not imply the presence of social classes. Each individual may have superiors and subordinates, but in such a ranking system any line we draw, to divide an upper from a lower class, may be entirely arbitrary.

[289] (どうして子どもは親に話をしなくなるのか)

Parents are often upset when their children praise the homes of their friends and regard it as a reproach against their own cooking, or cleaning, or furniture, and often are foolish enough to let the adolescents see that they are annoyed. They may even accuse them of disloyalty, or make some vicious remark about the friends' parents. Such a loss of dignity and descent into childish behaviour on the part of the adults deeply shocks the adolescents, and makes them resolve that in future they will not talk to their parents about the places or people they visit. Before very long the parents will be complaining that the child is so secretive and never tells them anything, but they seldom realize that they have brought this on themselves.

[290] (田舎のイメージの変貌)

From the late eighteenth century onwards, the progress of the Industrial Revolution signalled the end of Britain as a nation of countrymen, and perhaps helped to implant in folk memory the comforting myth of a lost world in which mankind lived in closer harmony with nature, or the fond dream of somehow returning to find one's roots in ruralism. The greater the spread of the terrace and the factory, the office and the suburb, the more the realities of the countryside receded, until a life governed by unceasing labour and the uncertainties of the weather was transformed into a dreamland of health and happiness.

[291] (個々のアリと集団としてのアリ)

Ants possess an elaborate and highly organized social structure, based on the division of labour and collective responsibility. Although each individual ant has a very limited repertoire of behaviour, perhaps inferior to some modern microprocessor machines, nevertheless the colony as a whole displays a remarkable level of purpose and intelligence. The construction of the colonial home involves vast and sophisticated engineering projects. Clearly no individual ant carries a mental conception of the grand design. Each ant is simply an automaton programmed to execute a simple set of operations.

[292] (生態学と人間)

There are probably no areas in the world, however high, deep, cold, or barren, that are entirely free from the influence of man. It is therefore self-consciously academic to consider ecology as something apart from man and then assess man's impact on the "natural" world. Rather, man's activities from building and operating nuclear power station to factory farming should be considered as an integral part of the complexity of the living world and are just as "ecological" as a pond or a forest.

[293] (芸術と他者)

Anyone who has anything to say has a natural desire to be heard. Even though the artist sometimes claims that he creates only for himself, he cannot help wishing to share his creation, his experience and his emotion with others. The moment a creator shows his

paintings, performs his music, or prints his poem he ceases to isolate or even protect himself. He may keep himself apart from the others, avoid the crowd, scorn criticism, show no interest in any response, but he cannot pretend that his right to privacy extends to what he has exhibited.

[294] (アメリカにおける競争と企業)

Americans take it for granted that a private enterprise system should be competitive. We expect competition to be the principal means by which the public interest is protected, and consequently we think it a major function of the State to see to it that competition is kept vigorous. To this end we protect competition by law. More than sixty years ago a law was enacted prohibiting groups of business men from agreeing to restrain trade and also forbidding single enterprises to monopolize any part of our commerce or to attempt to monopolize it. Under these American laws any person who wishes to engage in business may do so. He need not seek the consent of the business men who are already established in the fields he wishes to enter.

[295] (過去への傾倒の理由)

The present age is the most historically-minded of all ages. Modern man is to an unprecedented degree self-conscious and therefore conscious of history. He peers eagerly back into the twilight out of which he has come, in the hope that its faint beams will illuminate the obscurity into which he is going; and, conversely, his aspirations and anxieties about the path that lies ahead quicken his insight into what lies behind. Past, present, and future are linked together in the endless chain of history.

[296] (怠惰とアメリカ社会)

The idea that laziness is the primary sin and the accompanying doctrine of the strenuous life are very prevalent in America, and we cannot escape the fact that America is an amazingly prosperous country. But neither can we escape the fact that society there is in such a condition that all its best contemporary writers are satirists. Curiously enough, most of the great American writers have not hesitated to praise idleness, and it has often been their faculty for doing nothing and praising themselves for doing it, that has been their salvation.

[297] (歴史家の使命)

The historian must depend on evidence, but the historian's mission is much more than the transcription of evidence. The very term "evidence" implies judgment of relevance. The historical act is therefore, first of all, the act of selection; selection is just another word for interpretation; and interpretation implies a sense that some things matter more than others. The historian can no more escape this process than the novelist or poet. He or she noses around in chaos, like any other writer, and comes up with what his sensibility, within the discipline of demonstrable fact, finds appropriate.

[298] (日本人の変化)

The comprehensive change in the outward appearance of Japanese life is beyond dispute. In their dress, their leisure pursuits, and their consumption patterns, young people in Japan have come closely to resemble those in the West. But it is much less clear how far this outward transformation of life-style has been accompanied by change in the inner life of young Japanese men and women. It may seem that such changes have been far from superficial; that the new consumption style has been accompanied by the spread of new values which reflect this style. In their attitudes to work, marriage, politics and sexual morality, young Japanese are moving closer to the views of young Westerners and away from those of the old Japanese so much so indeed that it is possible to speak of the existence of a generation gap.

[299] (昆虫の重要性)

A few insects, probably less than 2 percent of the species in the world, make life difficult for us by transmitting diseases, eating our crops, or destroying our stores of food. But as a group, they are essential to our well-being, because they are indispensable components of virtually all of the ecosystems upon which we depend for the food and other organic products without which we could not survive. Even the survival of city dwellers who have never seen a farm ultimately depends upon insects. Without insects to carry pollen and to consume waste, most of these ecosystems would disappear and be replaced by ones that are far less hospitable to humans.

[300] (教育の効果)

Democratic education is a difficult ideal to achieve. Its basic principle is that of equality, yet children are not equally gifted. In the past some psychologists argued that only a lack of parental enthusiasm for education and a lack of competent teachers created seeming differences in the abilities of pupils. But regardless of the ultimate cause of unequal abilities whether they are inherited or the result of outside influence it is hard to deny that they exist. Inborn ability can be fostered by good teachers, but it may also be revealed without the benefit of formal education. Abraham Lincoln had only one year of schooling. The only book his family owned was the Bible, and he himself said about his early surroundings that they provided "absolutely nothing to excite ambition for education." He taught himself grammar and mathematics and then, in his early twenties, began to study lawbooks. He was 27 when he passed the bar examinations and first began to practice law. This was the educational foundation of the most admired American president.
