

英語 I (選択)

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- 1 You have finally finished writing your article. You comb for errors, and by the time you publish you are absolutely certain that not a single typo survived. But, the first thing your readers notice isn't your carefully crafted message, it's the misspelled word in the fourth sentence. Typos suck. They are saboteurs, [31](1. overstating 2. clarifying 3. undermining) your intent, causing your resume to land in the "pass" pile, or providing sustenance for an army of pedantic critics. [32](1. Gratifyingly 2. Frustratingly 3. Timelessly), they are usually words you know how to spell, but somehow skimmed over in your rounds of editing. If we are our own harshest critics, why do we miss those annoying little details?
- 2 The reason typos get through isn't because we're stupid or careless, it's because what we're doing is actually very smart, explains psychologist Tom Stafford, who studies typos at the University of Sheffield in the UK. "When you're writing, you're trying to express meaning. It's a very high-level task," he said. As with all high-level tasks, your brain generalizes simple, component parts so it can focus on more complex tasks. "We don't catch every detail, we're not like computers or databases," said Stafford. "Rather, we take in sensory information and combine it with what we expect, and we extract meaning."
- 3 When we're reading other people's work, this helps us arrive at meaning faster by using less brain power. When we're proofreading our own work, we know the meaning we want to [33](1. disassemble 2. convey 3. inhibit). Because we expect that meaning to be there, it's easier for us to miss when parts of it are absent. The reason we don't see our own typos is because what we see on the screen is competing with the version that exists in our heads. This can be something as [34](1. trivial 2. momentous 3. callous) as transposing the letters in "the" to "hte," or something as significant as omitting the core explanation of your article.
- 4 Generalization is the [35](1. hallmark 2. bookmark 3. pockmark) of all higher-level brain functions. It's similar to how our brains build maps of familiar places, compiling the sights, smells, and feel of a route. That mental map frees your brain up to think about other things. Sometimes this works [36](1. for 2. without 3. against) you, like when you accidentally drive to work on your way to a barbecue, because the route to your friend's house includes a section of your daily commute. We can become unaware of details because our brain is operating on instinct. By the time you proofread your own work, your brain already knows the destination.

5 But even if [37](1. disorganization 2. interrogation 3. familiarization) interferes with your ability to pick out mistakes in the long run, we're actually pretty awesome at catching ourselves in the act. In fact, touch typists know they've made a mistake even before it [38](1. speaks out 2. simmers down 3. shows up) on the screen. Their brain is so used to turning thoughts into letters that it alerts them when they make even minor mistakes, like hitting the wrong key or swapping two characters. In a study published earlier this year, Stafford and a colleague covered both the screen and keyboard of typists and monitored their word rate. These touch typists slowed down their word rate just before they made a mistake. When the brain senses an error, it sends a signal to the fingers, slowing them down so they have more time to adjust.

6 As any typist knows, hitting keys happens too fast to divert a finger when it's in the process of making a mistake. However, Stafford says this evolved from the same mental [39](1. issue 2. obstruction 3. mechanism) that helped our ancestors' brains make micro adjustments when they were throwing spears. Unfortunately, that kind of instinctual [40](1. feedback 2. tailback 3. payback) doesn't exist in the editing process. When you're proofreading, you are trying to trick your brain into pretending that it's reading the thing for the first time. Stafford suggests that if you want to catch your own errors, you should try to make your work as unfamiliar as possible. Change the background color or print it out and edit by hand. "Once you've learned something in a particular way, it's hard to see the details without changing the visual form," he said.

—Based on Stockton, N. (2014). "Why it's so hard to catch your own typos," *Wired.com*.

[41] Which of the following is likely an example of the kind of errors described in this article?

1. making up or tampering with data
2. misinterpreting another author's text
3. deciding to exclude contrary evidence
4. forgetting to capitalize your own name

[42] What is the most likely meaning of the word "pass" in paragraph 1?

1. to meet the requirements of an exam
2. to be eliminated from a range of choices
3. to be relayed from one person to another
4. to move ahead of the competition

[43] According to the passage, it is easy for us to overlook mistakes in our own writing because

1. our brain already has an image of the writing that it is reviewing.
2. our brain does not have enough capacity to check texts carefully.
3. we are used to reading things written by others, not ourselves.
4. we do not spend enough time on rereading what we've written.

[44] What did the study by Stafford and his collaborator indicate about touch typists?

1. They subconsciously slow their typing speed when they are about to make errors.
2. They make more typos when their keyboards and screens are hidden from view.
3. They can make moderate corrections to their finger movements while they type.
4. They may sometimes drive to a familiar location instead of their destination.

[45] Which of the following methods of improving proofreading effectiveness is consistent with the advice in paragraph 6?

1. imagining you have read the text repeatedly already
2. practicing touch typing difficult words and phrases
3. changing the typeface of all the text in your document
4. reading the words aloud as you check the draft of the text

英語Ⅱ

次の文章に関して、空欄補充問題と読解問題の二つがあります。まず、[46]から[55]の空所を埋めるのに、文脈的に最も適切な語を 1 から 3 の中から選び、その番号を解答欄 (46) から (55) にマークしなさい。次に、内容に関する[56]から[60]の設問には、1 から 4 の選択肢が付されています。そのうち、文章の内容からみて最も適切なものを選び、その番号を解答欄 (56) から (60) にマークしなさい。

- 1 The invisible loss in climate change is the loss of natural areas. Genuine climate change renders moot the 20th century's many struggles to preserve and conserve the wilderness. There can be no [46](1. easy 2. true 3. useful) "wilderness" in a Greenhouse Earth. All creatures are under the same gray sky. There can be no refuge, nothing can go untouched. "Nature" is over; there is no [47](1. investment 2. regime 3. sanctity) left to defend; all that breathes is breathing unnatural air.
- 2 But though the 21st century may have no nature, that does not imply that it will have no savagery. [48](1. As a consequence 2. For the time being 3. On the contrary), large and growing areas of the planet will have lost their value for technological instrumentalism. Abandoned as profit centers, they are too unstable for settlement and development. They might become slums. Or they could make good carbon-dioxide sumps.
- 3 Consider the following scenario. Outflanked by rapid climate change, rain forests and national wildernesses will be badly damaged by floods, and periodically on fire. The CO₂ is a terrifying menace and must be put somewhere. Nature is beaten and no longer fit for the job, so humans must step [49](1. down 2. in 3. out). We can envision a harshly authoritarian government reshaping the landscape wholesale. They might create carbon-dioxide ration-states with zealous blood-and-soil ideological overtones. Because the Motherland is visibly imperiled, whole populations would be cybernetically [50](1. drafted 2. guarded 3. scanned) for the moral equivalent of a people's war. Massive deportations of population, internal visas, and living-space issues become political commonplaces. The remains of wilderness, and the newly drowning areas, are nervously [51](1. assessed 2. patrolled 3. rebuilt) by immigration authorities who hunt poachers and illegal aliens with infra-red and DNA sniffers.
- 4 Since such areas can't be financially exploited, they are deliberately [52](1. overestimated 2. overgrown 3. overexposed) by government order. This makes sense. The faster they can suck up carbon, the more they will slow down climate change. The country's imperiled areas therefore become a new kind of landscape: Involuntary Parks. They bear some small resemblance to the twentieth century's national parks, those government-owned areas guarded by forest rangers. They are, for instance, very green, and probably full of wild animals. But the species mix is no longer natural. They are mostly fast-growing weeds, a cosmopolitan jungle of kudzu and bamboo, with perhaps many

genetically altered species that can deal with seeping saltwater. Drowned cities that cannot be demolished for scrap will vanish into the unnatural vegetation. The idea is [53](1. derailed 2. farfetched 3. lighthearted), but not without precedent. Here are some contemporary examples of Involuntary Parks:

- The very large and slightly poisonous areas downwind of Chernobyl, which have been reported to feature wild boars and somewhat distorted vegetable and insect forms.
- The Green Line between Turkish Cyprus and Greek Cyprus. Intruders are shot or arrested there, and over the years the area has become reforested.
- Very old and decaying railroad lines in the United States, which [54](1. intentionally 2. obviously 3. paradoxically) contain some of the last untouched prairie ecosystems in North America.

5 Involuntary Parks are not representatives of untouched nature, but of vengeful nature, of natural processes reasserting themselves in areas of political and technological collapse. An [55](1. embarrassment 2. entitlement 3. entertainment) during the 20th century, Involuntary Parks could become a somber necessity during the 21st. A world map of Involuntary Parks would be an interesting and perhaps enlightening addition to new maps of our newly uninsurable world.

—Based on Sterling, B. (approx. 1998). “The world is becoming uninsurable, part 3,” *Viridian*.

[56] Which of the following best captures the author's view of modern "nature" given in this article?

1. "Nature" may not be unlimitedly used to support our lifestyles.
2. Those in power no longer utilize "nature" in order to make profit.
3. "Nature" has come to involve a landscape deformed by humans.
4. What appears to be "nature" is a carefully planned landscape.

[57] Based on what is said in paragraph 3, the purpose of introducing "internal visas" is

1. to control the number of new immigrants.
2. to restrict citizens' freedom of domestic travel.
3. to promote tourism for economic regeneration.
4. to prevent the population from fleeing the country.

[58] What situation does the author mean by "cosmopolitan jungle" in paragraph 4?

1. The area is overseen not by a government but by an international organization.
2. City life serves as a new laboratory for experimenting with multiculturalism.
3. Genetically modified plants are introduced by the administration to soak up CO₂.
4. Indigenous lifeforms exist alongside newly introduced species from different locations.

[59] A possible example of an "Involuntary Park" is

1. the Usolyekhimprom chemical plant in Siberia. Now abandoned, its toxic waste inhibits all animals and plants from surviving.
2. an oasis in a large desert such as the Sahara. Travelers drop plant seeds from different countries, unintentionally creating an exotic vegetation.
3. a small quarter in a megalopolis such as Los Angeles, where people get together to take care of a green area. They do so spontaneously without instruction.
4. the Korean Demilitarized Zone, which is about a mile wide and stretches entirely across the Korean Peninsula. Non-native species have been discovered there.

[60] Which of the following would be the best subtitle of this article?

1. Wilderness strikes back
2. A chance to change our destiny
3. Cityscape as a scapegoat
4. Preserve nature, preserve dignity

英語Ⅲ

次の文章に関して、空欄補充問題と読解問題の二つがあります。まず、[61]から[80]の空所を埋めるのに、文脈的に最も適切な語を1から3の中から選び、その番号を解答欄(61)から(80)にマークしなさい。次に、内容に関する[81]から[90]の設問には、1から4の選択肢が付されています。そのうち、文章の内容からみて最も適切なものを選び、その番号を解答欄(81)から(90)にマークしなさい。

- 1 In 1875, *Harper's Weekly* declared one Lomer Griffin of Lodi, Ohio, to be, “in all probability,” the oldest man in the union. His age, allegedly, was 116. There were doubters. Lomer’s own wife, for instance, said he was only 103. And William John Thoms, an English author and demographer who had just written a book on human longevity, expressed [61](1. skepticism of 2. support for 3. wonder at) all such centenarian claims. A human’s maximum life span was about 100, Thoms asserted. Certainly no claim of an age over 110 had ever been verified.
- 2 “Evidence of any human being having attained the age, not of 130 or 140, but of 110 years ... will be found upon examination utterly worthless,” he wrote. Centuries of expert [62](1. advice 2. negotiations 3. testimony) (not to mention insurance company data) had established 100 years as the longest possible human lifetime, Thoms insisted—apart from a few “extremely rare” exceptions. He expressed bewilderment that some medical authorities still believed that a lifetime might exceed nature’s rigorously imposed limit.
- 3 Yet even today, almost a century and a half after Lomer Griffin’s death in 1878 (at age 119 by some accounts), scientists still [63](1. ignore 2. dispute 3. accept) what the oldest human age could ever be—and whether there is any limit at all. After all, more than a dozen people are alive today with validated ages over 110 (and many more that old are still around, just not documented). Yet in only one verified case has anyone lived beyond 120—the French woman Jeanne Calment, who died in 1997 at age 122. “The possible existence of a hard upper limit, a cap, on human lifetimes is [64](1. warmly 2. coolly 3. hotly) debated,” write Léo Belzile and coauthors in a paper to appear in *Annual Review of Statistics and Its Application*. “There is sustained and widespread interest in understanding the limit, if there is any, to the human life span.”
- 4 It’s a question with importance beyond just whether people lie about their age to get recognized by *Guinness World Records*. For one thing, absence of an upper age limit could affect the viability of social security and pension systems. And determining whether human lifetimes have an [65](1. adulterated 2. inviolate 3. obsolete) maximum might offer clues to understanding aging, as well as aiding research on prolonging life. But recent studies have not yet resolved the issue, instead producing controversy [66](1. migrating 2. diverging 3. arising) from competing claims, note Belzile, a statistician at the business university HEC Montréal in Canada, and colleagues. Some of that controversy, they suggest,

stems from incorrect methods of statistical analysis. Their own reanalysis of data on [67](1. extreme 2. interrupted 3. orthodox) lifetimes indicates that any longevity cap would be at least 130 years and possibly exceed 180. And some datasets, the authors report, “put no limit on the human life span.” These analyses “suggest that the human life span lies well beyond any individual lifetime yet observed or that could be observed in the absence of major medical advances.”

5 Such conclusions [68](1. reinforce 2. contradict 3. offset) the old claims of Thoms and others that nature imposed a strict limit to lifetime. Thoms supported that view by quoting the 18th century French naturalist Georges-Louis Leclerc, Comte de Buffon. Lifetime limits did not seem to vary much from culture to culture despite differences in lifestyles or diets, Buffon pointed out. “It will at once be seen that the duration of life depends neither upon habits, nor customs, nor the quality of food, that nothing can change the fixed laws which regulate the number of our years,” he wrote. Thoms’ own investigation into reports of super long lifetimes found that in every instance mistakes had been made—a father confused with a son, for instance, or a birth record identified with the wrong child. And of course, some people simply lied.

6 Even today, the lack of high-quality data [69](1. bolsters 2. outweighs 3. confounds) statistical attempts to estimate a maximum life span. “Age overstatement is all too frequent, as a very long life is highly respected, so data on supercentenarians must be carefully and individually validated to [70](1. refute 2. conceal 3. ascertain) that the reported age at death is correct,” write Belzile and coauthors. Fortunately, some collections [71](1. remove 2. provide 3. obscure) verified data on the oldest of the old. One such collection, the International Database on Longevity, includes information from 13 countries on supercentenarians (those living to age 110 or beyond) and for 10 countries on semi-supercentenarians (those reaching 105 but not making it to 110).

7 Analyzing such datasets requires skillful use of multiple statistical tools to infer maximum longevity. A key concept in that regard is called the “force of mortality,” or “hazard function,” a measure of how likely someone reaching a given age is to live a year longer. (A 70-year-old American male, for instance, has about a 2 percent chance of dying before reaching 71.) Of course, the hazard of dying changes over time—youngsters are generally much more likely to live another year than a centenarian is, for instance. By establishing how death rates change with age, statistical methods can then be applied to estimate the maximum possible life span.

8 From age 50 or so onward, statistics show, the risk of death increases year by year. In [72](1. contrast 2. short 3. fact), the death rate rises exponentially over much of the adult life span. But after age 80 or so, the rate of mortality increase begins to slow down (an effect referred to as late-life mortality deceleration). Equations that quantify changes in the hazard function show that it levels

[73](1. off 2. down 3. up) at some age between 105 and 110. That means equations derived from lower age groups are unreliable for estimating life span limits; proper analysis requires statistics derived from those aged 105 and up. Analyses of those groups suggest that by age 110 or so, the rate of dying in each succeeding year is roughly 50 percent (about the same for men as for women). And the data so far do not [74](1. lock in 2. rule out 3. set off) an even smaller annual chance of death after that.

9 Depending on the details of the dataset (such as what age ranges are included, and for what country), a possible longevity cap is estimated in the range of 130 to 180. But in some cases the statistics imply a cap of at least 130, with no upper limit. Mathematically, that means the highest ages in a big enough population would be infinite—implying [75](1. immorality 2. immaturity 3. immortality). But in reality, there’s no chance that anybody will beat Methuselah’s Biblical old age record of 969. The lack of a mathematical upper bound does not actually allow a potentially infinite life span. “Every observed lifetime has been and always will be finite,” Belzile and coauthors write, “so careful translation of mathematical truths into everyday language is required.”

10 For one thing, a 50 percent chance of living to the next year makes the odds pretty [76](1. good 2. slim 3. even) that a 110-year-old will live to 130—about one chance in a million. That’s the equivalent of tossing coins and getting 20 heads in a [77](1. line 2. row 3. wave). Nevertheless, if the math is correct in indicating no true longevity cap, the old-age record could continue to climb to ages now unimaginable. Other researchers have pointed out that, with an increasing number of supercentenarians around, it’s [78](1. implausible 2. undeniable 3. conceivable) that someone will reach 130 in this century. “But a record much above this will remain highly unlikely,” Belzile and colleagues note.

11 As for Lomer Griffin, claims of reaching age 119 were clearly exaggerated. By his (third) wife’s reckoning he was 106 when he died, and his [79](1. gemstone 2. tombstone 3. keystone) agrees, giving his dates as 1772 to 1878. [80](1. So far 2. Thus 3. Alas), his birth record (recorded in Simsbury, Connecticut) shows that Lomer (short for his birth name, Chedorlaomer) didn’t really reach 106 at all. He was born April 22, 1774, making him a mere 104 at death. But he still may very well have been the nation’s oldest citizen, because anyone claiming to be older was probably lying about their age as well.

—Based on Siegfried, T. (2021). “Human life span may have no limit, analysis of supercentenarians suggests,” *Knowable Magazine*.

[81] Based on his writing from about the same time period, how would William John Thoms most likely react to the *Harper's Weekly* account of Lomer Griffin's longevity?

1. He would guardedly agree that reaching such an age was possible.
2. He would wholeheartedly dismiss the information as preposterous.
3. He would call for an immediate study of Griffin's lifestyle.
4. He would view the story of Griffin as validation of his own work.

[82] Whose position would have most confused William John Thoms in the late 1800s?

1. a doctor who thought that humans could not reach 110 years of age
2. a doctor who thought that healthier lifestyles would extend life spans beyond a century
3. a doctor who felt that existing data implied a stringently confined human life span
4. a doctor who questioned the legitimacy of the *Harper's Weekly* Lomer Griffin story

[83] The author mentions *Guinness World Records* in order to

1. suggest a case in which someone might provide false personal information.
2. point out that the information gathered for world records is always changing.
3. argue that *Guinness World Records* functions as a modern-day *Harper's Weekly*.
4. illustrate the likelihood that human life spans will continue to elongate.

[84] When Léo Belzile and coauthors reconsider the upper limits of human life span, the numbers they arrive at

1. approach Lomer Griffin's purported age in 1875.
2. ultimately uphold the beliefs of William John Thoms.
3. are prolonged from current norms, but not significantly so.
4. suggest the possibility of unprecedented progression.

[85] In reference to the work of Buffon, which aspect of lifestyle is *not* mentioned when comparing the longevity of multiple cultures?

1. nutritional adequacy
2. daily behavior
3. national laws
4. cultural conventions

[86] According to the passage, which of the following portrays the type of mix-up that William John Thoms had encountered in his research?

1. A birth certificate wrongly identifies George Johnson as his younger sibling.
2. A government office misplaces Margaret Brown's important personal records.
3. A woman said to be Mary A. Davis is actually Mary B. Davis (no relation).
4. A birth certificate states William Miller is ten years older than his actual age.

[87] According to the author, what will the "hazard function" help researchers to better understand?

1. the likelihood of certain kinds of death at certain ages
2. the leading causes of death for US males in their 70s
3. the reasons the lives of adolescents are relatively secure
4. the probability of a person to pass before their next birthday

[88] Considering late-life mortality deceleration, which individual's data would be most useful in efforts to declare a possible longevity cap?

1. an 87-year-old man
2. a 97-year-old woman
3. a 57-year-old man
4. a 107-year-old woman

[89] When Léo Belzile and coauthors call for "careful translation of mathematical truths into everyday language," what issue are they addressing?

1. Discretion is needed when applying theoretical findings to actuality.
2. Based on their study, everyday human behavior needs to change.
3. We should exploit scientific calculations to produce enticing clickbait.
4. Claims of advanced age usually need to be heavily scrutinized.

[90] The author feels that if the calculations regarding prolonged life spans are reliable,

1. people will routinely reach the age of 130 years old.
2. the number of supercentenarians will eventually stabilize.
3. records of "oldest human" will need regular adjustment.
4. Lomer Griffin's exaggerated longevity will be further examined.