

I Read the following two passages and choose the most appropriate word or phrase for each item (1 ~14). Mark your choices (a ~ d) on the separate answer sheet.

(A) Do bumblebees have personalities? The question of whether animals have personalities has been intriguing a number of researchers in recent years, and a flurry of papers have reported that creatures such as spiders, squid, blue tits and social bees have all shown behaviour indicating that individuals possess something (1) to human personality. For the purpose of these experiments, ‘personality’ is equated with ‘individual-specific consistency in their behaviour across time and context’. In other words, if an animal shows an identifiably different behaviour to another of its species in response to a similar situation, and that difference is (2) over time, then the animal has a personality.

In 2010, researchers at London University reported the results of experiments to monitor the reactions of bumblebees when they encountered flowers of a colour they had not (3) seen. Using artificial flowers with sucrose solutions at their centres, the researchers measured the time bees spent foraging at each flower. (4) is generally the case with animals encountering something new, they spent longer investigating the strangely coloured flowers, either out of interest (neophilia) or suspicion (neophobia), but the overall results fell short of confirming that bumblebees have personalities. (5), the experiments started well by showing that individual bees showed differing behaviours towards the new plants, but those differences were not exhibited consistently over an extended period: ‘We concluded that for the neophilia/neophobia paradigm used here, bumblebee foragers do not (6) the criteria for animal personality in the common sense of the term. Instead their behavioural response to novelty appears to be (7), varying on a day to day basis.’

(Adapted from William Hartston, *The Things That Nobody Knows*)

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|------------------------|-----------------------|-----------------------|----------------------|
| 1. (a) analogous | (b) biological | (c) condensed | (d) domestic |
| 2. (a) diminished | (b) maintained | (c) raised | (d) varied |
| 3. (a) predominantly | (b) preferably | (c) prematurely | (d) previously |
| 4. (a) As | (b) It | (c) That | (d) What |
| 5. (a) For a reason | (b) In that respect | (c) On the contrary | (d) To that intent |
| 6. (a) deny | (b) fulfil | (c) suspect | (d) undergo |
| 7. (a) aesthetic | (b) drastic | (c) plastic | (d) tactic |

(B) Environmental linguistics is an emerging field at the intersection of linguistics and natural sciences. It recognizes the mutual relationship between cultural and (8) diversity, documenting linguistic structures and verbal practices by which speakers conceptualize, encode, and transmit knowledge about the natural world. It surpasses the largely metaphorical and narrative program of ecolinguistics to position language as the preeminent conceptual framework and channel for environmental knowledge. (9) phenomena — as Indigenous experts explain — cannot be understood apart from the languages that encode them, and vice versa. Language diversity is thus the key to safeguarding biodiversity and a balanced human relationship with nature. Environmental linguistics allows us to (10) linguistics as our field evolves to prioritize the mutual creation of knowledge over the collection of data.

It relies on (11) of knowledge with Indigenous experts, ideally as coauthors but minimally as acknowledged collaborators and intellectual property owners. Linguists were long accustomed to treating languages as (12) and copyrightable data; this is now changing. We have an opportunity to help decolonize biological sciences ranging from botany to entomology to zoology. Biologist Walter Jetz, a cocreator of the “map of undiscovered species,” opines that at the current pace of global environmental change, there is no doubt that many species will go extinct before we have ever learned about their existence. There is a long (13) in both linguistics and anthropology of taking seriously Indigenous biological nomenclature and taxonomics. Most of what humans know about plants, animals, weather, and diverse natural phenomena is found not in scientific databases or scholarly publications but in minority and often (14) languages. Environmental linguistics shares and promotes these values. If we have the humility to listen to the experts, it is a way of knowing that may help save the planet.

(Adapted from K. David Harrison, “Environmental Linguistics”)

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|------------------------|------------------|------------------|------------------|
| 8. (a) biographical | (b) ecological | (c) general | (d) spatial |
| 9. (a) Mechanical | (b) Natural | (c) Paranormal | (d) Sartorial |
| 10. (a) canonize | (b) conquer | (c) decolonize | (d) disempower |
| 11. (a) coproduction | (b) deletion | (c) repetition | (d) separation |
| 12. (a) extractable | (b) formidable | (c) insertable | (d) remarkable |
| 13. (a) commission | (b) decision | (c) position | (d) tradition |
| 14. (a) endangered | (b) imposed | (c) protected | (d) supposed |

II Read the following three passages and mark the most appropriate choice (a ~ d) for each item (15~24) on the separate answer sheet.

(A) The word ‘religion’ derives from Latin *religio*, the root of which, according to a disputed ancient tradition, is *ligere*, to bind. Looked at from the outside, religions are defined by the communities who adopt them, and their function is to bind those communities together, to secure them against external shock, and to guarantee the course of reproduction. A religion is founded in piety, which is the habit of submitting to divine commands. This habit, once installed, underpins all oaths and promises, gives sanctity to marriage, and upholds the sacrifices that are needed both in peace and in war.

But religion is not the only form of social binding. There is also politics, by which I mean the government of a community by man-made laws and human decisions, without reference to divine commands. Religion is a static condition; politics a dynamic process. Where religions demand unquestioning submission, the political process offers participation, discussion and law-making founded in consent.

(Adapted from Roger Scruton, ‘The Social Contract’)

15. According to the text, one explanation of the origin of the word ‘religion’ rotates around
- (a) associating one communion with another.
 - (b) demanding people sacrifice themselves.
 - (c) increasing solidarity with each other.
 - (d) protecting believers from their seniors.
16. According to the text, politics and religion differ because
- (a) human consciousness is affected by religious activities.
 - (b) politics is more coercive and punitive than religion.
 - (c) religion is constant, while politics is active and changing.
 - (d) religion underpins laws, whereas politics reflects rituals.

(B) For anyone who wants a good laugh I recommend I. A. Richards's *Practical Criticism*.

Although mostly concerned with the general principles of literary criticism, it also describes an experiment that Dr. Richards made with, or one should perhaps say *on*, his English students at Cambridge. Various volunteers, not actually students but presumably interested in English literature, also took part. Thirteen poems were presented to them, and they were asked to criticise them. The authorship of the poems was not revealed, and none of them was well enough known to be recognised at sight by the average reader. You are getting, therefore, specimens of literary criticism not complicated by snobbishness of the ordinary kind.

The book is so arranged that you can try the experiment on yourself. The poems, unsigned, are all together at the end, and the authors' names are on a fold-over page which you need not look at till afterwards. I will say at once that I only spotted the authorship of two, one of which I knew already, and though I could date most of the others within a few decades, I made two bad bloomers, in one case attributing to Percy Bysshe Shelley (1792-1822) a poem written in the nineteen-twenties. But still, some of the comments recorded by Dr. Richards are startling. They go to show that many people who would describe themselves as lovers of poetry have no more notion of distinguishing between a good poem and a bad one than a dog has of arithmetic.

(Adapted from George Orwell, 'As I Please')

17. According to the passage, I. A. Richards's experiment

- (a) used famous poems that common people could recognise with ease.
- (b) used popular poems whose authors were not necessarily known.
- (c) was done to encourage snobbish readers to criticise poetry.
- (d) was done without indicating who wrote the poems it used.

18. Trying the experiment on himself, the author of the passage

- (a) made a mistake in thinking that Percy Bysshe Shelley was a twentieth-century poet.
- (b) made an error of about one century in estimating when a certain poem was written.
- (c) was able to identify just those poems which he had already known.
- (d) was able to tell the date of each poem's production.

19. According to the passage, the author believes Richards's book will show

- (a) a great likelihood of intellectual readers making fair literary judgements.
- (b) how comical it is that poetry enthusiasts have no eye for actual poems.
- (c) that most participants possessed a discriminating taste in poetry.
- (d) the way in which literary tastes differ from reader to reader.

(C) It may seem trite and obvious to say that the effect of a work of art depends not only on the author's power and skill, but also on what is already present in the minds of its hearers, or readers, or—in the case of the visual arts—its beholders. Nevertheless, this consideration is particularly pertinent to the poem of *Beowulf*, one of the oldest extant pieces of Anglo-Saxon (or Old English) poetic literature. This is so partly because this work is far removed from us in time, so that we are not entitled to assume without investigation that an audience of the poet's day would have been moved by the same things we are, or, if by the same things, necessarily in the same way; but still more, because much of the poem is composed with a subtle technique of allusion, reminder, and suggestion, so that we cannot guess at the effect the author of *Beowulf* was hoping to obtain unless we know something of the meaning and associations which his hints and his allusions carried to those for whom he originally composed his poem. This is, of course, no new idea: it is implicit in all modern-day *Beowulf* scholarship, though occasionally writers have lost sight of it.

There may be some who are content to study the impression that the poem makes now, concerning themselves only with what has survived the changes in our civilization and methods of thought, and caring little that ignorance of what the author counted on his audience knowing robs many of his remarks of their point. The poet has perhaps conveyed something of permanent value that is above the accidents of time and place, and which has consequently survived the ravages of the centuries. I think he has. It is not for me to discuss the legitimacy of such an approach. Moreover, it is not such persons that I am here addressing. For my own part, I should like to know what effect the poet was consciously striving to produce on the men of his own time; I want to see if by studying these men we can get any nearer to that knowledge. It will be necessary in the first place to gather what we can about them from the poem's statements and implications; but this does not mean that I wish to use the poem merely as a quarry for social history. I propose to use the poem of *Beowulf* to elucidate the poem of *Beowulf*.

The author of *Beowulf* was composing for Christians, whose conversion was neither partial nor superficial. He expects them to understand his allusions to biblical events without his troubling to be explicit about them. He does not think it necessary, for example, to tell them anything of the circumstances in which Cain killed his brother Abel. Rather, the author assumes his audience's familiarity not merely with the biblical stories, but with the interpretations in the commentaries—not necessarily at first hand, but through the teaching of the Church.

(Adapted from Dorothy Whitelock, *The Audience of Beowulf*)

20. According to the author, it is reasonable to say that the earliest audience of *Beowulf* was
- (a) affected in ways that may or may not have resembled how we respond to similar content.
 - (b) composed of people who did not necessarily get excited about similar stories as their fellows.
 - (c) eager to read and hear about more-or-less the same sort of content that we modern readers are.
 - (d) interested in how assumptions about various content moved other people in their own time.
21. Scholars who study *Beowulf* have, from time to time,
- (a) been careful to point out the possible effects of the poem's allusions upon a modern readership.
 - (b) failed to elaborate on the poet's choice of allusions in relation to his intended audience.
 - (c) gotten poor eyesight from too much reading and hence overlooked important allusions.
 - (d) neglected some of the poem's elegant rhymes in favor of its more explicit, historical content.
22. The author of this text is convinced that
- (a) any of the poem's supposedly permanent value actually results from incidental historical trends.
 - (b) investigating the historical and geographical context of *Beowulf* can limit our enjoyment of it.
 - (c) modern readers can see in *Beowulf* certain things that audiences in any age also find praiseworthy.
 - (d) the poem is still read and cherished because it represents the destructive influences of time.

23. The author intends to use the poem itself to
- (a) demonstrate that its male characters can be better understood when we focus on the poem itself.
 - (b) explain the historical circumstances influencing how later scholars understood the poem.
 - (c) explore ways the poem can be used not only as a factual but also as a fanciful record of the past.
 - (d) shed light on how early readers and listeners of *Beowulf* might have responded to this poem.
24. It appears that the earliest audience of *Beowulf*
- (a) had a deep understanding of the Bible, and so did not need any further commentaries.
 - (b) had become acquainted with the story of Cain and Abel through allusions to personal experience.
 - (c) possessed a shallow understanding of biblical allusions, and so needed written commentaries.
 - (d) was intimately familiar with biblical allusions because its members were informed believers.

Ⅲ Choose the most appropriate sentence from the following list (a ~ h) for each item (25~31). Mark your choices on the separate answer sheet.

- (a) But it was Galileo who overthrew the Greek view and effected the revolution.
- (b) Even though billions of observations tend to bear out a generalization, a single observation that contradicts or is inconsistent with it must force its modification.
- (c) He was the first to conduct timed experiments and to use measurement in a systematic way.
- (d) It interfered with and detracted from the beauty of pure deduction.
- (e) Moreover, they saw no difficulty in applying exactly the same method of reasoning to the question “What is justice?” as to the question “What is matter?”
- (f) The present general viewpoint is just the reverse of the Greeks.
- (g) Thus Galileo expanded on Kepler’s understanding of the movement of celestial bodies, bringing forth a revolution in the natural sciences.
- (h) To test a perfect theory with imperfect instruments did not impress the Greek philosophers as a valid way to gain knowledge.

The Greeks, by and large, had been satisfied to accept the “obvious” facts of nature as starting points for their reasoning. It is not on record that Aristotle ever dropped two stones of different weight to test his assumption that the speed of fall is proportional to an object’s weight. To the Greeks, experimentation seemed irrelevant. (25) Besides, if an experiment disagreed with a deduction, could one be certain that the experiment was correct? Was it likely that the imperfect world of reality would agree completely with the perfect world of abstract ideas; and if it did not, ought one to adjust the perfect to the demands of the imperfect? (26)

Experimentation began to become philosophically respectable in Europe with the support of such philosophers as Roger Bacon (a contemporary of Thomas Aquinas) and his later namesake Francis Bacon. (27) He was a convincing logician and a genius as a publicist. He described his experiments and his point of view so clearly and so dramatically that he won over the European learned community. And they accepted his methods along with his results.

According to the best-known story about him, Galileo tested Aristotle’s theories of falling bodies by asking the question of nature in such a way that all Europe could hear the answer. He is supposed to have climbed to the top of the Leaning Tower of Pisa and dropped a 10-pound sphere and a 1-pound sphere simultaneously; the thump of the two balls hitting the ground in the same split second killed Aristotelian physics.

Actually Galileo probably did not perform this particular experiment, but the story is so typical of his dramatic methods that it is no wonder it has been widely believed through

the centuries. Galileo undeniably did roll balls down inclined planes and measured the distance that they traveled in given times. (28)

His revolution consisted in elevating “induction” above deduction as the logical method of science. Instead of building conclusions on an assumed set of generalizations, the inductive method starts with observations and derives generalizations (axioms, if you will) from them. Of course, even the Greeks obtained their axioms from observation; Euclid’s axiom that a straight line is the shortest distance between two points was an intuitive judgment based on experience. But whereas the Greek philosopher minimized the role played by induction, the modern scientist looks on induction as the essential process of gaining knowledge, the only way of justifying generalizations. Moreover, the scientist realizes that no generalization can be allowed to stand unless it is repeatedly tested by newer and still newer experiments — the continuing test of further induction.

(29) Far from considering the real world an imperfect representation of ideal truth, we consider generalizations to be only imperfect representatives of the real world. No amount of inductive testing can render a generalization completely and absolutely valid. (30) And no matter how many times a theory meets its tests successfully, there can be no certainty that it will not be overthrown by the next observation.

This, then, is a cornerstone of modern natural philosophy. It makes no claim of attaining ultimate truth. In fact, the phrase “ultimate truth” becomes meaningless, because there is no way in which enough observations can be made to make truth certain and, therefore, “ultimate.” The Greek philosophers recognized no such limitation. (31) Modern science, on the other hand, makes a sharp distinction between the two types of question. The inductive method cannot make generalizations about what it cannot observe; and, since the nature of the human soul, for example, is not observable by any direct means yet known, this subject lies outside the realm of the inductive method.

(Adapted from Isaac Asimov, *Asimov’s New Guide to Science*)

IV Choose the most appropriate word or phrase from the list (a ~ m) for each item (32~38). Mark your choices on the separate answer sheet.

June: Hey Alex, can we talk about our class project?

Alex: Sure, what's up?

June: I was doing research for my part, but I can't seem to wrap my (32) around this concept.

Alex: Yeah, it took me a while to figure it out too. When the professor explained it to us in class, she was kind of beating (33). I remember wishing she'd just cut to the chase!

June: Yeah, exactly.

Alex: Here's an article that helped me get a better sense of the concept. You should give it a read. Just one thing — take the author's stance (34). There're always two sides to a story.

June: Great, thanks. I'll check it out. How's your part going?

Alex: Pretty good. Designing presentation slides is a pain in the (35) though.

June: Oh, I'm pretty good at it actually! It's my (36). I'm happy to help.

Alex: Super! Thanks, June.

June: No problem! Yeah, we can't cut (37), especially for this presentation. The professor has really high expectations, doesn't she? We have to do our own research, design effective slides, make the presentation engaging — the whole nine yards!

Alex: Well, I guess (38). Hopefully, we'll be better presenters by the end of it all.

(a) across

(b) around the bush

(c) clouds are on the horizon

(d) corners

(e) cup of tea

(f) every cloud has a silver lining

(g) hand

(h) head

(i) neck

(j) nose

(k) over the moon

(l) piece of work

(m) with a grain of salt

PLEASE READ THE INSTRUCTIONS CAREFULLY.

- V Read the following passage and complete the English summary in your own words in the space provided on the separate answer sheet. The beginning of the summary is provided; you must complete it in 4-10 words. Do not use three or more consecutive words from this page.

We have all had the experience of our minds wandering off topic while we are attempting to pay attention to a boring task. Mind wandering can be dangerous if you allow your mind to drift too much while performing certain tasks; if you allow your mind to wander while driving, you may cause a fatal collision. Letting your mind drift in a classroom is less fatal: the penalty for mind wandering might be receiving some (perhaps misconceived) invective from your teacher. We flicker between zooming in on particular tasks and zooming out, perhaps while considering the larger picture of our lives. A key conclusion of modern psychological science is that mind wandering is characteristic of thought. It shouldn't be considered a design defect of the functioning of our brains.

Mind wandering can be deleterious for tasks requiring continuous concentration, but it can equally facilitate tasks requiring creativity and problem solving: for an artist, mind wandering can be detrimental in situations demanding prolonged focus, such as rendering a detailed portrait or a very exacting still-life painting. Attention to fine and particular details, accurately rendered, would suffer if the artist's mind wanders off, leading to errors and mistakes in the final piece. However, mind wandering can help with creativity and problem solving, such as conceptualising a new piece of art or coming up with a unique composition, through the accidental collision of ideas and visual images. Similarly, in computer programming, mind wandering can be damaging when debugging complex code or writing low-level system software, but beneficial when designing a new software architecture, application or algorithm.

(Adapted from Shane O'Mara, *Talking Heads*)

SUMMARY:

[complete the summary on the separate answer sheet]

Modern science argues that mind wandering is not a defect ...

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