

入試問題対策演習：一橋大学 記述問題 2016 (806 words)

① 下線部 (1) を和訳しなさい。

Today, we are confronted with **an unprecedented amount of information**, and each of us generates more information than ever before in human history. As **former Boeing scientist and New York Times writer Dennis Overbye** notes, this information stream contains “**more and more information about lives** — where we shop and what we buy, indeed, where we are right now — the economy, the genomes* of countless organisms we can’t even name yet, galaxies full of stars we haven’t counted, traffic jams in Singapore and the weather on Mars.” That information “tumbles faster and faster through bigger and bigger computers down to everybody’s fingertips, which are holding devices with more processing power than the Apollo mission control*.” (1) **Information scientists have measured all this: in 2011, Americans took in five times as much information every day as they did in 1986 — the equivalent of 175 newspapers.**

genome* ゲノム the complete set of genetic material of a human, animal, plant, or other living thing

Apollo mission control* アポロ計画のコントロールルーム

② 下線部 (2) の理由を文脈に即して具体的に日本語で説明しなさい。

Our brains do have the ability to process the information we take in, (2) but at a cost: we can have trouble separating the trivial from the important, and all this information processing makes us tired. Neurons* are living cells with a metabolism*; they need oxygen and glucose* to survive and when they've been working hard, we experience fatigue. Every status update* you read on Facebook, every tweet or text message you get from a friend, is competing for resources in your brain with important things like whether to put your savings in stocks or bonds, where you left your passport, or how best to reconcile with a close friend you just had an argument with.

neuron 神経細胞 metabolism 新陳代謝 glucose ブドウ糖

status update ソーシャル・ネットワーク上の更新された情報

記述問題の解法

- ① 解答の根拠となる本文の該当箇所を正確に範囲指定
- ② 問いに対応した答え方で答える。
「どうということ？」 ⇒ 「～ということ」
「何故？」 ⇒ 「～だから」
- ③ 代入して意味が通るかどうかを確認する。

The speed at which the conscious mind can process information has been estimated at 120 bits per second. That bandwidth is the speed limit for the traffic of information we can pay conscious attention to at any one time. While a great deal occurs below the threshold of our awareness, and this has an impact on how we feel and what our life is going to be like, in order for something to become part of our experience, we need to have paid conscious attention to it.

問題解答に関係ないと思われる箇所はある程度流して読んで構わないが、後の理解に不可欠になりそうな Key Word や Key Concept に注意して読む。

threshold : 境界

③ 下線部 (3) の理由を文脈に即して具体的に日本語で説明しなさい。

What does **this bandwidth restriction** — **this information speed limit** — mean in terms of our interactions with others? In order to understand one person speaking to us, we need to process **60 bits of information per second**. With **a processing limit of 120 bits per second**, this means **you can barely understand two people talking to you at the same time**. Under most circumstances, you will not be able to understand three people talking at the same time. We're surrounded on this planet by billions of other humans, but (3) **we can understand only two at a time at the most!** It's no wonder that the world is filled with so much misunderstanding.

bandwidth : バンド幅

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⑤⑥ 空所 (A) (B) に入る適切なものを選びなさい。

With so many limitations on human attention, it's clear why many of us feel overwhelmed by managing some of the most basic aspects of life. Part of the reason is that our brains evolved to (A) us deal with life during the huntergatherer phase of human history, a time when we might encounter no more than a thousand people in our lifetime. Walking around midtown Manhattan, you'll pass that (B) of people in half an hour.

- A: イ enable □ force ハ help ニ leave
B: イ appearance □ number ハ sort ニ street

一橋大入試英語の真骨頂 = 考えさせる空所補充問題

④ 下線部 (4) "attentional filter" がどのように作用するかを本文の論旨に即して 80 字以内の日本語 (句読点含む) で説明しなさい。

Attention is the most essential mental resource for any organism. It determines which aspects of the environment we deal with, and most of the time, various automatic, subconscious processes make the correct choice about what gets passed through to our conscious awareness. For this to happen, millions of neurons are constantly monitoring the environment to select the most important things for us to focus on. These neurons are collectively called the attentional filter. This work mostly in the background, outside of our conscious awareness. This is why we don't notice many little details in our daily lives, or why, when you've been driving on the freeway for several hours, you don't remember much of the scenery: your attentional system "protects" you from registering it because it isn't considered important. This unconscious filter follows certain principles about what it will let through to your conscious awareness.

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(4) **The attentional filter** is one of evolution's greatest achievements. In nonhumans, it ensures that they don't get distracted. **Squirrels** are interested in nuts and predators*, and not much else. **Dogs**, whose olfactory* sense is one million times more sensitive than ours, use smell to gather information about the world more than they use sound, and **their attentional filter** has evolved to make that so. If you've ever tried to call your dog while he is smelling something interesting, you know that it is very difficult to catch his attention with sound — smell is a more important sense than sound in the dog brain. No one has yet learned everything about **the human attentional filter**, but we've discovered a great deal about it.

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predator* 捕食動物

olfactory* 嗅覚の