E

令和５年度 総 合 問 題 A

問 題 冊 子

注 意 事 項

1. 監督者の指示があるまで，問題冊子を開かないこと。
2. 問題冊子は，12 ページに組んである。
   なお，落丁，乱丁及び印刷不鮮明なものがあれば，すぐに申し出ること。
3. **解答用紙に必ず本学の受験番号，氏名を記入すること。各解答用紙に受験番号欄が２箇所，氏名欄が１箇所ある。**
4. 解答は，解答用紙の指定された解答欄に記入すること。異なる解答用紙・解答欄に記入されたものは採点されない。
5. 記入した解答用紙は，裏返して机上に置くこと。
6. 解答用紙の※欄は記入しないこと。
7. 試験終了後，問題冊子は持ち帰ること。

1 次の英文を読んで，あとの問いに答えなさい。＊印のある語句の注は本文の後に示されています。

Larry Silverberg is a "dynamicist" at North Carolina State University. That simply means he is an expert in the movement of physical things. For example, he has studied the movement of millions of free throws over twenty years.

One thing he has found over the years is that the most important factor for successfully shooting a free throw is the speed at which you release the ball. To achieve the kinesthetic* sweet spot takes practice and muscle memory. The goal is to get to the point where you try without trying — where your movement becomes smooth, natural, and instinctive.

That is what is meant by (1)*Effortless Action*.

If you try too hard when shooting a free throw, you will tense up and move too fast. This is similar to what happens to many (2)overachievers who have been conditioned to believe that more effort leads to better outcomes. When they invest a lot of effort and do not see the results they want, they lean in harder. They work longer hours. They obsess over the situation more. They are trained to see the lack of progress as a sign that yet *more* effort is required. What they have not learned is that: past a certain point, more effort does not produce better performance. It sabotages our performance.

Economists call this (3)the law of *diminishing returns*: after a certain point, each extra unit of input produces a decreasing rate of output. For example, if I write for two hours, I can produce two pages. But if I write for four hours, I can produce three pages. The rate of output is slowing down. More effort at this point should be questioned. But sometimes overachievers double down on effort. They see the reduced output and mistakenly think the answer is to push even harder. What is the effect of this?

Negative returns: the point where we are not merely getting a smaller

return on each additional investment, we are actually *decreasing* our overall output. For example, there is a point in writing where you start making a manuscript worse by working on it longer. The same can be said for composing a song, drafting a blueprint, preparing a legal argument, or writing computer code, along with many other endeavors. You are fatigued. Your judgment is impaired. Every ounce of extra effort you put in now is detrimental*. It is an example of *false economy* to continue at this point.

It is not just that overall output suffers; it is a recipe for burnout as well.

This is an example of overexertion(4), or in everyday parlance*, trying too hard. Perhaps you have experienced this yourself. Trying too hard in a social setting makes it harder to connect authentically with someone else. Trying too hard for a promotion can reek of desperation and, therefore, make you seem less desirable. Trying too hard to get to sleep can make it almost impossible to wind down. Trying too hard to look intelligent rarely impresses the people you want to impress. Trying too hard to be cool, to relax, to feel good, all make it harder to be cool, relax, or feel good. That is the trouble with overexertion.

What is curious about this approach is how different it is from our lived experience. Have you not found that when you do your very best work, the experience feels effortless? You act almost without thinking. You make things happen without even *trying* to make things happen. You are in the zone, in flow, in peak performance.

This is the sweet spot for doing what matters.

In Eastern philosophy, the masters call this sweet spot *wu wei*(5) (pronounced Oo-Way). *Wu* means "not have" or "without." *Wei* means "do," "act," or "effort." So *wu wei*, literally "without action" or "without effort," means "trying without trying," "action without action," or "effortless doing."

The goal is to accomplish what matters by trying less, not more: to achieve our purpose with bridled* intention, not overexertion. This is what is meant by Effortless Action.

(注) kinesthetic 運動感覚の　　detrimental 有害な
parlance 言い方　　bridled 抑制された

出典：Greg McKeown, *Effortless*. Currency Publishers. 2021.（一部改変）

問 1　下線部(1)の状態において，ボールを投げる人の動きはどのようになっているか。30 字以内の日本語で説明しなさい。

問 2　下線部(2)のような人は努力と結果の関係についてどのように思い込んでいるか。最も適切なものを以下の(ア)～(エ)から選び，記号で答えなさい。

(ア) 努力してもしなくても結果は変わらない。
(イ) 努力すればするほど結果が悪くなる。
(ウ) 努力すればするほど良い結果が得られる。
(エ) 努力しない方がかえって結果は良くなる。

問 3　下線部(3)について，次の問いに対する答えとして最も適切なものを，以下の(a)～(d)から選んで，記号で答えなさい。

Which of the following statements is *definitely not true* about the law of diminishing returns?

(a) Additional investment is not always associated with higher returns.
(b) The point of diminishing returns is reached when returns per unit of input start to fall.
(c) Diminishing returns are the result of diminishing investment.
(d) Higher returns may be achieved when the speed of new investment increases.

問 4　下線部(4)の状態ではどのような問題が起こるか。眠りを例にとって，30 字以内の日本語で説明しなさい。

問 5　下線部(5)を漢字 2 文字で表すとすればどのようになるか。最も適切なものを，以下の(ア)～(オ)から選び，記号で答えなさい。

(ア)　無　為

(イ)　無　常

(ウ)　無　駄

(エ)　無　知

(オ)　無　理

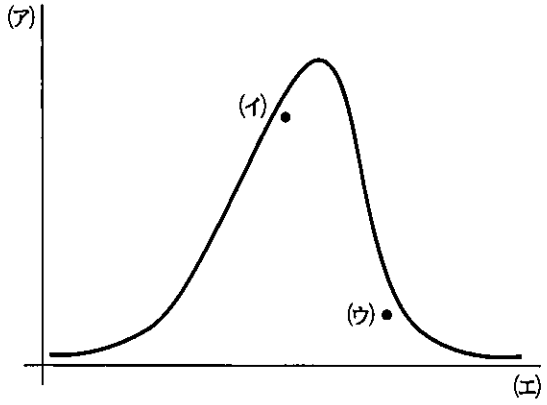
問 6　本文の内容を踏まえて，次のグラフの(ア)から(エ)に，以下の(a)～(d)のうちそれぞれ最も適切なものを入れなさい。解答は記号(a)～(d)で答えなさい。

(a)　effort

(b)　effortless action

(c)　output

(d)　overexertion



問 7　次の問いに対する答えとして最も適切なものを，以下の選択肢(1)～(5)から選んで，記号で答えなさい。

Which combination [(1) to (5)] of the following statements best describes the *main conclusions* from the arguments explained in the text?

A　It is possible to achieve positive returns without any effort or action.

B　More effort does not always lead to better outcome.

C　Overexertion and effortless action lead to lower returns.

D　It is possible to achieve positive returns with actions based on the least of efforts.

E　Negative returns represent a decrease in overall output.

選択肢：

(1)　A and B

(2)　B and C

(3)　B and D

(4)　C and D

(5)　A and E

2 次の英文を読んで，あとの問いに答えなさい。＊印のある語句の注は本文の後に示されています。

When confronted with a choice, we automatically face a series of decisions about how to choose. Instantly, our brain starts evaluating the problem on many dimensions, all at once. The chooser encodes a broad-brush* view of the choice quickly. If it is a webpage, we automatically notice the color, whether the font is easy or hard to read, and the amount (or lack) of white space. If it is a friend listing possible places we could meet for dinner, we hear not only the content of the options but the subtleties* inherent in how they are talking: Are they hesitant while describing that new sushi place? Are they hinting that they would like to stay nearby? We form an overall impression of the complexity of the choice in front of us: Are there many options? Are there many attributes? Are the labels and units easy to understand? This impression serves to influence our choice of a plausible* path.

Let us consider a simple choice between just two options, each with two characteristics. Figure 1 presents a choice between two Amazon gift certificates*, a smaller one you get sooner or a more valuable one you get four weeks later. In studying decision-making, these two options are called (1) the *smaller-sooner outcome* and *larger-later outcome*.

Smaller-sooner is tempting, and most people — over 60 percent — choose this option. Researchers use choices like this in many studies of self-control. To make sure people take the decision seriously, some participants are emailed the actual gift certificate at the time indicated.

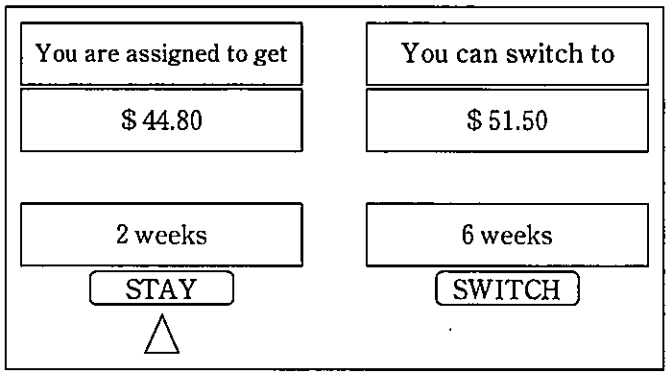


Figure 1. A simple choice between two gift certificates available at different times

Although this is a simple setup, there are multiple plausible paths. You still have to make decisions about how you will look at and combine information. Even in this simple problem, different plausible paths will make a difference in what you choose.

You could, for example, look at each amount and try and adjust its value given how long you would have to wait, asking yourself what it would feel like to get the $44.80 in two weeks. We call this path *integrating*. Another path, taken by roughly half of the people in our studies, is to figure out the difference in the amounts — $6.70 in this example — and see whether it is worth waiting an extra four weeks to get the larger-later option. We call this path *comparing*.

Along with Crystal Reeck, now a professor at Temple University, and Dan Wall, a graduate student at Carnegie Mellon, I studied these plausible paths. We did this by tracking the order that people look at information when they make this choice. We use *eye tracking*.(2) Tracking eye movements is easier than it sounds. People sit in front of a computer screen and on top of that screen is what looks like a webcam, just like someone might use for video conferencing. The camera focuses on just the pupil and iris* of each eye and

uses infrared* light to unobtrusively* track the person's eye movements. Figure 2 shows typical tracks for integrating (left) and comparing (right).

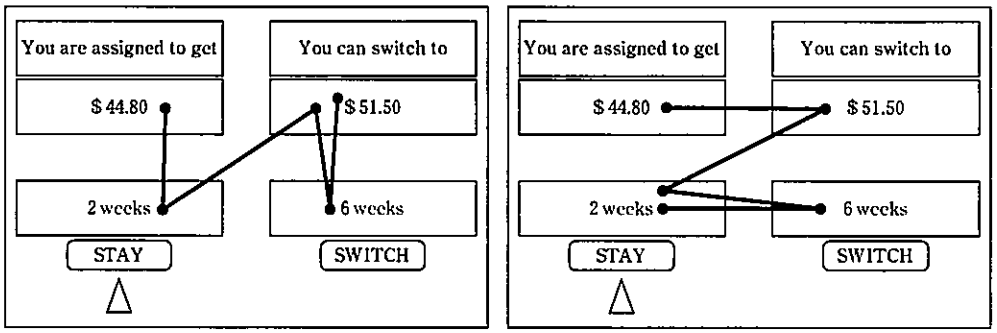


Figure 2. Eye tracks representing two plausible paths for making this choice, integrating (left) and comparing (right)

By tracking where the eye stops, a researcher can get a very good idea of what you are looking at. Surprisingly, we do not see anything when the eyes are moving, only when they are still. Essentially, the eye is taking a series of snapshots that our brains stitch* together. Eye tracking lets us know what you looked at, and we can see whether you looked first at the smaller-sooner amount or at the time it would take to get the larger-later certificate. While we cannot tell if you are struggling to resist temptation, we can see if you compare or integrate the options. We identify the plausible path you use because we see the snapshots that your eye is presenting to your brain.

Different paths produce different choices. We have given these options to hundreds of people and watched how they made choices. Study participants who compare outcomes, looking back and forth, are more patient. They choose the larger-later outcome almost half the time. The people who integrate the outcomes, looking within the options, up and down, chose the more patient option less than 30 percent of the time. This is because they seem drawn to the immediate pleasure of getting the smaller gift certificate sooner.

Comparing, in contrast, points out that you will give up $6.70 if you do not wait.

This kind of decision, known as an *intertemporal choice problem*, has attracted enormous attention in the last fifty years. It involves the fundamental challenge facing most decision-makers when they are making choices involving time. Each option has two attributes: the first, an amount of money, and the second, the date the money will be delivered. To make this choice, people have to trade off between time and money: Sooner is better, but so is more money. In these choices, you have to give up one to get the other.

One of the reasons these choices have attracted so much interest is that intertemporal choices surround us. For some choices, the mapping between these experimental questions and real-life decisions seems obvious. We can decide to spend money today or use the money to save for retirement. But there are other important real-world intertemporal choice problems. Deciding to smoke cigarettes today brings pleasure but has delayed long-term health consequences. As I remind my students, they can decide to go out and party tonight, or stay in and study. By studying, I hope, they get a delayed reward: better grades leading, potentially, to better jobs and higher salaries.

Studying intertemporal problems has shown that costs and benefits that are available immediately have an outsized* impact upon decisions. If the smaller-sooner option is available now, it will be much more attractive. Psychologists call such overweighting of immediate consequences *present bias*. (3) Present bias explains why people might like teaser rates, those offers that give you a great deal upfront* but then have higher costs down the road. You need only look at most offerings from telephone and cable companies to see examples. Recently, for instance, my cable TV company offered me faster internet service at $49 for an introductory six months. It was almost impossible to find how much it would cost after that.

The act of making any decision might suffer from present bias. With

every decision, we must invest effort now for later rewards delivered by choosing better options. We might choose a bad credit card because we like its teaser rate, but I am talking about another reason we may make a bad choice: we may simply decide that the effort required to evaluate the alternatives is not worth the savings.

The gift certificate decision illustrates why plausible paths are important. If we can change the path used by people to make a decision, we might help them choose better options.

(注) broad-brush 大まかな　　subtleties 微妙な点
plausible 妥当と思われる　　gift certificates ギフト券
pupil and iris (眼球の)瞳孔と虹彩　　infrared 赤外線の
unobtrusively そっと　　stitch 縫い合わせる
outsized 特に大きい　　upfront 人目を引く

出典：Eric J. Johnson, *The Elements of Choice*. Riverhead Books. 2021. (一部改変)

問 1　下線部(1)の smaller-sooner outcome と larger-later outcome の違いは，一般的に言ってどのようなものか。45 字以内の日本語で説明しなさい。

問 2　下線部(2)の実験を行うことによって，どのようなことを明らかにしようとしているか。30 字以内の日本語で説明しなさい。

問 3　次の問いに対する答えとして最も適切なものを，以下の(1)～(4)から選んで，記号で答えなさい。

What is the probability that the gift certificate with the attributes of 2 weeks and $44.80 is chosen by people who tend to integrate the outcomes?

(1) exactly fifty percent

(2) unknown probability

(3) more than seventy percent

(4) less than fifty percent

問 4　下線部(3)は決断するときにどのように作用するのか。30 字以内の日本語で説明しなさい。

問 5　次の問いに対する答えとして最も適切なものを，以下の選択肢(1)～(4)から選んで，記号で答えなさい。

What are the two *main assumptions* underlying the author's arguments?

A The gift certificates cannot be used after six weeks.

B The choice of one person does not depend on the choice of others.

C All study participants finally choose one of the two available options.

D The gift certificates are for personal consumption not for sale.

選択肢：

(1) A and B

(2) B and C

(3) B and D

(4) A and D

問 6　次の問いに対する答えとして最も適切なものを，以下の(1)~(4)から選んで，記号で答えなさい。

Which of the following statements is *definitely not true*?

(1) Some people are slow in making decisions because they enjoy thinking about different choices.

(2) Bad decisions are often made because not enough effort and time are sacrificed to evaluate choices.

(3) Different plausible paths may lead to different choices.

(4) More information is always needed to make better decisions.

問 7　次の問いに対する答えとして最も適切なものを，以下の(1)~(4)から選んで，記号で答えなさい。

What is the *main conclusion* of the arguments presented in the text?

(1) There are always intertemporal choices between two plausible options.

(2) Intertemporal choices are choices about interest rates.

(3) People use different paths to make different decisions related to real-life intertemporal choices.

(4) Smaller-sooner options are more attractive because of the present bias for immediate reward.