

## 平成23年度大阪大学医学部医学科2年次9月学士編入学試験問題

## 英語

答は、すべて解答用紙に記入すること。

## 第1問

投資家として著名な George Soros は、金融市場でバブルが発生し、それが崩壊するに至る過程を説明するモデルを提唱している。以下の文は、その基本原理について記したものである。以下の文を読み、設問に答えよ。

I can state the core idea in two relatively simple propositions. One is that in situations that have thinking participants, the participants' view of the world is always partial and distorted. That is the principle of fallibility. The other is that these distorted views can influence the situation to which they relate because false views lead to inappropriate actions. That is the principle of reflexivity. For instance, treating drug addicts as criminals creates criminal behavior. It misconstrues the problem and interferes with the proper treatment of addicts. As another example, declaring that government is bad tends to make for bad government.

(A) The concept of fallibility is far less controversial. It is generally recognized that the complexity of the world in which we live exceeds our capacity to comprehend it. I have no great new insights to offer on that subject. The main source of difficulties is that participants are part of the situations they have to deal with. Confronted by a reality of extreme complexity, we are obliged to resort to various methods of simplification: generalizations, dichotomies, metaphors, decision rules, and moral precepts, to mention just a few. (B) These mental constructs take on an existence of their own, further complicating the situation.

The concept of reflexivity needs a little more explication. It applies exclusively to situations that have thinking participants. The participants' thinking serves two functions. One is to understand the world in which we live; I call this the cognitive function. The other is to change the situation to our advantage. I call this the participating or manipulative function. The two functions connect thinking and reality in opposite directions. In the cognitive function, reality is supposed to determine the participants' views; the direction of causation is from the world to the mind. By contrast, in the manipulative function, the direction of causation is from the mind to the world—that is to say, the intentions of the participants have an effect on the world. (C) When both functions operate at the same time they can interfere with each other by depriving each function of the independent variable that would be needed to determine the value of the dependent variable: when the independent variable of one function is the dependent variable of the other, neither function has a genuinely independent variable.

This means that the cognitive function can't produce enough knowledge to serve as the basis of the participants' decisions. Similarly, the manipulative function can have an impact on the outcome

but can't determine it. In other words, the outcome is liable to diverge from the participants' intentions. There is bound to be some slippage between intentions and actions, and further slippage between actions and outcomes. As a result, there is an element of uncertainty in both our understanding of reality and the actual course of events.

To understand the uncertainties associated with reflexivity, we need to probe a little further. If the cognitive function operated in isolation without any interference from the manipulative function, it could produce knowledge. Knowledge is represented by true statements. A statement is true if it corresponds to the facts —that is what the correspondence theory of truth tells us. But if there is (D), the facts no longer serve as an independent criterion by which the truth of a statement can be judged because the correspondence may have been brought about by the statement changing the facts.

Consider the statement "It is raining." That statement is true or false depending on whether it is, in fact, raining. Now consider the statement "This is a revolutionary moment." That statement is reflexive, and its truth value depends on the impact it makes.

In the real world, the participants' thinking finds expression not only in statements but also, of course, in various forms of action and behavior. That makes reflexivity a very broad phenomenon that typically takes the form of feedback loops. The participants' views influence the course of events, and the course of events influences the participants' views. The influence is continuous and circular; that is what turns it into a feedback loop. The process may be initiated from either direction; from a change in views or from a change in circumstances.

Feedback loops can be either negative or positive. Negative feedback brings the participants' views and the actual situation closer together; positive feedback drives them further apart. In other words, a negative feedback process is self-correcting. It can go on forever and if there are no significant changes in external reality, it may \_\_\_\_\_ (E).

By contrast, a positive feedback process is self-reinforcing. It cannot go on forever because eventually the participants' views would become so far removed from objective reality that the participants would have to recognize them as unrealistic. Nor can the iterative process occur without any change in the actual state of affairs, because it is the nature of positive feedback to reinforce whatever tendency prevails in the real world. Instead of equilibrium, we are faced with a dynamic disequilibrium, or what may be described as far-from-equilibrium situations. Usually in far-from-equilibrium situations the divergence between perceptions and reality produces a climax that sets in motion a positive feedback process in the opposite direction. Such initially self-reinforcing but eventually self-defeating boom-bust processes, or bubbles, are characteristic of financial markets, but they can also be found in other spheres. There, I call them fertile fallacies —interpretations of reality that are distorted but produce results that reinforce the distortion.

(George Soros, The Soros lectures, Public Affairs より抜粋)

## 問1

下線(A)と最も近い意味の文を以下から選択し記号で答えよ。

- a) Most people think the concept of fallibility is complicated.
- b) Few people think the concept of fallibility is complicated.
- c) Most people approve of the concept of fallibility.
- d) Few people approve of the concept of fallibility.
- e) Most people think there is a defect in the concept of fallibility.

## 問2

下線(B)の文の意味を "These mental constructs" が何を指しているかを示した上で説明しなさい。

## 問3

文中の "cognitive function"、"manipulative function" のそれぞれの意味を説明しなさい。ここで "function" は、関数の意味を含んでいる。

## 問4

下線(C)の文の意味を要約して説明せよ。

## 問5

空欄部(D)に入る語句を以下から選択し記号で答えよ。

- a) a complement to the manipulative function
- b) a complement to the cognitive function
- c) no complement to the cognitive function
- d) interference from the manipulative function
- e) no interference from the manipulative function

## 問6

空欄部(E)に入る節を、下記の語句全てを使い、順序を入れ替えて作成せよ。解答欄に、カタカナ記号で順番に記しなさい。

it may (ア an equilibrium, イ come to, ウ correspond to, エ eventually lead to,  
オ in which, カ the actual state of affairs, キ the participants' views) .

## 問7

著者がここに記している金融市場でバブルが発生し、それが崩壊するに至る過程を説明するモデルを日本語で要約して説明せよ。