

I. 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、[1]から[20]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(1)から(20)にマークしなさい。次に、内容に関する[21]から[30]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(21)から(30)にマークしなさい。

There are many meanings of the word “theory.” In science, a theory states a relationship between two or more things (scientists call them “variables”) that can be tested by factual observations. We have a “theory of gravity” that [1](1. examines 2. predicts 3. acknowledges) the speed at which an object falls, the path on which a satellite must travel if it is to maintain a constant distance from the earth, and the position that a moon will keep with respect to its associated planet.

This theory has been tested rigorously, [2](1. as much as 2. so much as 3. so much so) that we can now launch a satellite and know exactly where it must be in space in order to keep it rotating around the earth. It was not always this way. From classical times to the Middle Ages, many important thinkers thought that the speed with which objects fall toward the earth depended solely on their weight. We now know that this view is false. In a vacuum, objects fall at the same speed and, thanks to Newton, we know the formula with which to [3](1. accelerate 2. calculate 3. control) that speed.

The other meaning of “theory” is the popular and not the scientific one. It is referred to as a guess, a faith, or an idea. It does not state [4](1. an adaptable 2. a testable 3. a usable) relationship between two or more things. It is a belief that may be true, but its truth cannot be tested by scientific inquiry. One such theory is that God exists and [5](1. includes 2. infers 3. intervenes) in human life in ways that affect its outcome. God may well exist, and He may well help people overcome problems or even (if we believe certain athletes) determine the outcome of a game. But that theory cannot be verified. There is no way anyone has found that we can prove empirically that God exists or that His action has affected some human life. If such a test could be found, the scientist who performed it would overnight become a [6](1. genius 2. hero 3. successor).

Evolution is a theory in the scientific sense. It has been tested repeatedly by examining the remains of now-extinct creatures to see how one [7](1. sequence 2. organization 3. species) has emerged to replace another. Even today we can see some examples of evolution at work, such as when scholars watch how birds on the Galapagos Islands adapt their beak size from generation to generation to the food supplies they encounter.

The theory of evolution has not been proven as fully as the theory of gravity. There are many gaps in what we know about prehistoric creatures. But everything that we have learned is [8](1. consistent with 2. contrary to 3. irrelevant to) the view that the creatures we encounter today had ancestors from which they evolved. This view, which is the only scientifically defensible theory of the origin of species, does not by any [9](1. means 2. trend 3. accident) rule out the idea that God exists.

What existed before the Big Bang created the universe? Is there an afterlife of heaven (or hell) that awaits us after we die? Can a faith in God change our lives? There are religious scientists who believe that God exists and affects our lives, and there are scientists who reject the idea of God and his actions. For example, Isaac Newton was a deeply religious man, and what we today call the Newtonian laws, he [10](1. attached 2. attributed 3. contributed) to God's handiwork. On the other hand, Charles Darwin, though he started his adult life as a sincere believer intending to become a priest, abandoned his insistence that God created animal species and replaced that view with his extraordinary, and now widely accepted, theory of evolution.

There is another theory called "intelligent design." Its [11](1. consumers 2. critics 3. proponents) argue that there are some things in the natural world that are so complex that they could not have been created by accident. They often use the mousetrap as a metaphor. We can have all of the parts of a trap—a board, a spring, a clamp—but it will not be a mousetrap unless someone assembles it. The assembler is the "intelligent designer."

Mousetraps, however, are not created by nature but are manufactured by people. Then, we must ask what part of natural life is so complex that it cannot be fully explained by Darwinian theory. Some have suggested that the human eye is one such example. But the eye has been studied for decades with results that strongly [12](1. deny 2. doubt 3. suggest) it has evolved. At first there were light-sensitive plates in prehistoric creatures that enabled them to move toward and away from illumination. In a few animals, these light-sensitive plates were more precise. This was the result of genetic differences. Just as only a few people today can see a baseball [13](1. as long as 2. as poorly as 3. as well as) Ted Williams could, so then some creatures were able not only to detect light but to see shapes or colors in the light.

When those talented creatures lived in a world that rewarded such precision, they [14](1. recovered 2. regained 3. reproduced) while untalented creatures died out. Maybe the talented ones were better able to find food or avoid being eaten and the untalented ones could not. These first genetic accidents were followed, over millions of years, by others that made it possible for some creatures to see very tiny objects or see at great distances. Such creatures had an evolutionary [15](1. advantage 2. preference 3. priority) over other creatures that could not do those things.

But if an intelligent designer indeed created the human eye, that designer made some big mistakes. The eye has a blind spot in the middle that [16](1. enhances 2. induces 3. reduces) its capacity to see. Other creatures, more dependent on sharp eyesight than we are, do not have this blind spot. Some people are colorblind and others must start wearing glasses when they are small children. All of these variations and shortcomings are consistent with evolution. None is consistent with the view that the eye was designed by an intelligent being.

What schools should do is to teach evolution emphasizing both its successes and its still unexplained limitations. Evolution, like almost every scientific theory, has some problems. But they are not the kinds of problems that can be solved by assuming that an intelligent designer created life. Not a single [17](1. piece 2. proportion 3. property) of

scientific evidence in support of this theory has been put forth since the critics of Darwin began writing in the 19th century.

Some people claim that if evolution is a useful (and, so far, correct) theory, we should still see it at work all around us in humans. We do not. But we can see it if we adopt a long enough time frame. Mankind is believed to have been on this earth for about 100,000 years. In that time there have been changes in people's appearance, but those changes have occurred very slowly. After all, 1,000 centuries is just a [18](1. blank 2. blink 3. block) in geological time. [19](1. Besides 2. Therefore 3. However), the modern world has created an environment by means of public health measures, the reduction in crime rates, and improved levels of diet that have sharply reduced the environmental variation that is necessary to [20] (1. reconstruct 2. renew 3. reward) some genetic accidents and penalize others. But 100,000 years from now, will the environment change so much that people who now have unusual characteristics will become the dominant group in society? Maybe.

—Adapted from James Q. Wilson, "Faith in Theory"

[21] According to the article, the theory of evolution

1. contradicts the idea that God exists.
2. is a belief that cannot be tested by scientific inquiry.
3. is consistent with the fact that the eye has a blind spot.
4. should be taught together with the theory of intelligent design.

[22] According to the article, which of the following is in accordance with Isaac Newton's thinking?

1. God was the designer of the Big Bang that created the universe.
2. The speed with which an object falls toward the ground depends on its weight.
3. The theory of evolution has not been proven as fully as the theory of gravity.
4. The theory of gravity prevails because God exists.

[23] Which of the following is consistent with the meaning of “theory” as explained in the 3rd paragraph?

1. It is based on empirical investigation.
2. It does not affect any human action.
3. It cannot be tested by scientific inquiry.
4. It is mainly concerned with the relationships among various things.

[24] In the 7th paragraph, the example of a mousetrap is used by those who claim that

1. Darwin gave up any belief that God created animal species.
2. evolution is a product of accidents.
3. parts make a whole without a designer.
4. the theory of evolution is questionable.

[25] In the 8th paragraph, the example of Ted Williams is meant to explain that

1. genetic differences can explain the patterns of evolution.
2. some creatures have sharper eyesight than humans because of evolution.
3. the great career of Ted Williams is inconsistent with the theory of evolution.
4. the theory of evolution has some limitations.

[26] In the 10th paragraph, the example of the blind spot is used to support the argument that

1. other creatures depend more on sharp eyesight than we do.
2. the human eye is not perfect.
3. the theory of evolution does not tell the full story.
4. the theory of evolution is acceptable.

[27] According to the article, intelligent design refers to

1. a theory that can be verified by factual observations.
2. a theory that is becoming more prevalent than the theory of evolution.
3. the idea that evolution occurs because of God’s handiwork.
4. the idea that some things in the natural world do not occur by accident.

[28] According to the article, we are unable to see evolution at work in humans, because

1. the record of the human species does not include any reference to it.
2. it does not occur fast enough for us to observe.
3. it is slowing down in the modern era.
4. the environment has recently assumed unusual characteristics.

[29] Which of the following is mentioned in support of the theory of intelligent design?

1. Isaac Newton.
2. The mousetrap.
3. Ted Williams.
4. Prehistoric creatures.

[30] Which of the following best summarizes the author's position?

1. Evolution and intelligent design are equally valid.
2. Evolution is the most convincing theory so far.
3. Intelligent design is consistent with evolution.
4. Intelligent design is wholly unscientific in nature and should be abandoned.

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The year 2005 will be remembered as a year of monumental generosity that donors demonstrated in the face of natural disasters. It should also be remembered as the year when traditional philanthropy* displayed how stagnant and ineffective it really is.

The public response to the natural disasters of 2005 shows there is no lack of funds. In fact, the financial conditions of the various aid agencies have probably never been healthier. The poor, however, continue to suffer. Meanwhile, donors give blindly without demanding the accountability that guarantees results. This is simply [31](1. untrue 2. uneasy 3. unacceptable).

Whatever little attention is given to accountability is usually misplaced. Most donors and watchdogs have become alert to fraud and theft. Fraud and theft are, however, no longer the real accountability issues. We should focus on avoiding waste and ineffectiveness. The problem with philanthropy today is that too much attention is focused on counting receipts and too little on outcomes. Philanthropy, like business, should have a bottom line. Any industry is going to suffer in the absence of [32](1. loosely 2. blindly 3. clearly) defined measures of success.

Approaching philanthropy as a form of investment is an important part of the solution to the problems of philanthropy. There is reason for [33](1. optimism 2. pessimism 3. nihilism): Increasingly, donors are treating their giving like their investments. Many philanthropists have begun to see philanthropy as a capital market. They demand the same levels of transparency and accountability that they expect from stock markets. Some have termed this “social investment” or “venture philanthropy.” Geneva Global, an organization created by donors in search of real accountability, prefers the term “performance philanthropy.” Performance philanthropy is a hopeful alternative

to traditional approaches to giving, [34](1. unless 2. because 3. although) it is working.

The first step toward performance philanthropy is gathering data on results, not just needs. Geneva Global began a quest to determine “return on investment” for philanthropy more than five years ago. We have learned, through detailed research and the handling of hundreds of grants affecting millions of people each year, a great deal about measuring [35](1. needs 2. receipts 3. performance) in philanthropy.

The most effective measure we have found is *prima facie*: life change. This is, at heart, what philanthropy is all about—changing the lives of the neediest among us. Measuring life change can be remarkably easy. Income growth, improved nutrition, access to health care, orphans housed, AIDS patients cared for, access to clean water, completion of primary education, and falling infant mortality rates are clear indicators of life improvement that can be [36](1. less 2. readily 3. poorly) measured. In fact, it is these exact statistics that show the failure of traditional “blind” giving.

This leads to the next question: How can life change be maximized? Geneva Global has found that the highest return on investment is generated by local, grassroots organizations rather than big national agencies or international non-governmental organizations (NGOs). This should not be [37](1. surprising 2. common 3. simple). The poor know what they need and are tireless in taking advantage of self-help opportunities. A classic example of this is James Tooley’s research demonstrating the success of locally managed schools in the world’s worst slums. Thus, we find that maximum return on investment comes when funds are invested in the poorest places. These are situations where traditional approaches have most thoroughly [38](1. failed 2. succeeded 3. disappeared).

The evaluation of grassroots projects must be based on evidence that each initiative has enjoyed successful performance—that it not only shows “need” but also demonstrates “proven results.” Based on analysis of results from grants given, we have found that there are a number of key performance indicators that predict results. The first is past record. [39](1. Since 2. While 3. Unless) past performance does not guarantee

future results in investing, past performance is a strong predictor of future results in philanthropy. Other key indicators are sustainability of the intervention, existence of thorough project plans with well-defined performance measures, and risk management planning. Project leaders themselves are [40](1. reliable 2. rare 3. sole) indicators of future performance, which can be predicted fairly well through demonstrated experience, demonstrated commitment to power sharing and training of others, and extent of networking to other leaders. Nearly 80 percent of projects evaluated and funded over the past five years using this methodology met or exceeded their stated numerical project objectives.

In the past year, [41](1. however 2. for example 3. therefore), donors via Geneva Global placed nearly a million U.S. dollars in grants related to tsunami relief. These contributions, distributed across more than 20 grassroots projects, will deliver trauma counseling to more than 60,000 affected individuals, restore incomes to more than 9,000 people, and provide medical care to more than 30,000 people. This does not include additional benefits like rebuilding 500 homes and immediate aid such as access to clean water and food. At an even more micro scale, one \$40,000 grant provided medical care to more than 4,000 people, trained 200 families to grow vegetables for themselves in temporary housing camps, and provided therapy to hundreds of surviving children who became homeless. [42](1. In the same way 2. In contrast 3. Instead), the total \$14 billion provided by governments and private aid agencies has thus far provided medical care and temporary housing to approximately 800,000 displaced people and rebuilt approximately 20,000 homes. There is a sharp contrast in the cost/benefit ratio of these two sets of figures.

Performance philanthropy has additional benefits. Not only does it maximize results; it also encourages additional investment. When donors are [43](1. able 2. reluctant 3. insensitive) to follow their money and understand the direct results of their generosity, they become much more committed to the philanthropic process. These committed and involved donors help to energize and expand the field of giving.

The [44](1. marriage 2. failure 3. uniqueness) of measurable results and more

committed donors is why performance philanthropy is so convincing as a strategy for reducing global poverty and its related consequences. According to the World Bank, half the world's 6 billion people live on less than \$2 a day, and 1.3 billion people—more than 20 percent of the world's population—live on less than \$1 per day. These poverty figures, [45](1. due to 2. roughly 3. despite) hundreds of billions of dollars of traditional philanthropy, keep growing. The number of people living on less than \$2 a day grew by 300 million in the last 20 years.

Our experiences show that there are many willing to participate in the noble campaign to end poverty on our planet. Unfortunately, most charitable giving stays [46](1. outside 2. inside 3. beside) the wealthiest countries. In the United States, which accounts for the majority of private philanthropy worldwide, less than six percent of monetary giving leaves the United States. Even using one research organization's liberal calculations that include volunteer time and other forms of giving, the total is still less than eight percent. Research from other [47](1. imperial 2. developed 3. Christian) nations produces similar results. A leading reason for this disparity in need and giving has been the lack of reliable information and confirmation that donating abroad actually impacts those who need help the most. Western private donors give [48](1. little 2. different 3. great) weight to risk and return on investment. When allowed to apply investment strategy to philanthropy, they respond. This is evident in the growing number of givers adopting similar philosophies.

Giving [49](1. blindly 2. modestly 3. inevitably) does not improve the status quo of poverty in the world. This need not be the case. Much can be accomplished with relatively modest amounts of money when giving is invested in results rather than in need only. Philanthropists must demand [50](1. more than 2. nothing less than 3. anything but) real, meaningful and measurable life change for those they seek to help.

—Adapted from Eric Thurman, "Performance Philanthropy"

*philanthropy: a commitment to human welfare and advancement, usually manifested by donations of money, property, or jobs to people in need

[51] According to the article, “traditional philanthropy” is what we should

1. return to in order to mitigate global poverty.
2. reject because it worsens global poverty.
3. replace with performance philanthropy.
4. convert to a capital market.

[52] The word “blindly” in the 2nd paragraph is used to emphasize how

1. uneducated donors are about the reality of global poverty.
2. uninformed donors are about the purpose of traditional philanthropy.
3. ignorant donors are about the paradox of performance philanthropy.
4. unaware donors are of the outcomes of philanthropic commitment.

[53] According to the author, fraud and theft should now be considered

1. as unimportant as the act of counting receipts.
2. responsible for waste and ineffectiveness.
3. more seriously by performance philanthropy.
4. more seriously by donors and watchdogs.

[54] In the article, the author believes that the concept of investment

1. will further exploit social justice in this world.
2. should stay out of philanthropy because it is concerned too much with results.
3. will help to reduce waste and ineffectiveness.
4. should be incorporated into philanthropy because it is not concerned with results.

[55] The meaning of the phrase “*prima facie*” in the 6th paragraph is closest to

1. simple and obvious.
2. supernatural and divine.
3. hypocritical and deceptive.
4. primitive and facile.

[56] In the 7th paragraph, James Tooley’s research is mentioned in order to

1. illuminate the importance of education in the world’s worst slums.

2. highlight the difference between locally managed schools and grassroots organizations.
3. demonstrate the validity of Geneva Global's findings.
4. emphasize what philanthropy is all about.

[57] According to the 9th paragraph, Geneva Global has shown that

1. performance philanthropy encourages additional investment.
2. its local and grassroots organizations are effective but costly.
3. a number of key performance indicators can predict results.
4. traditional approaches have failed.

[58] The data from the World Bank in the 11th paragraph is quoted in order to indicate

1. how serious the disparity between need and giving is.
2. how narrow the gap between the rich and the poor has become.
3. the limit to what performance philanthropy can do.
4. the limit to how far global poverty can be overcome.

[59] The meaning of the word "liberal" in the 12th paragraph is closest to

1. open-minded.
2. humanitarian.
3. inclusive.
4. democratic.

[60] Which of the following best captures the main point of this article?

1. Seizing Self-Help Opportunities
2. Bringing Accountability to Charitable Giving
3. Reducing Global Poverty
4. Maximizing Return on Investment