四川大学研究生教材基金重点资助项目

博士研究生英语精读教程

罗义蕴　编著

A Course General English Reading for Doctorate Students

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序

“年年岁岁花相似，岁岁年年人不同”。在世纪之交，经过又一次高教体制改革，强强合并后的新四川大学已成为我国西部地区规模最大、学科门类最齐全的新型综合性研究型大学。

作为新世纪的献礼，我校研究生教材建设基金资助的第一批研究生优秀教材正式出版了，我在此表示热烈的祝贺。

众所周知，21 世纪是知识经济的世纪，国际竞争空前激烈。竞争的焦点是科学技术，竞争的核心是创新型人才，竞争的关键是国民教育。对于四川大学这样的国家重点大学而言，则要注意大力发展研究生教育，扩大研究生规模，注重研究生质量。

校长、教师、教材是办学中的三大要素。教材是教学改革与师生智慧的重要的物化的结晶。正是基于这种思考，我校决定在以学科建设为龙头的同时，努力加强研究生的教材建设，通过各种渠道，筹集了专项基金，用以资助研究生优秀教材的编写和出版。我们首次资助的是有博士学位授权点的学科专业中涉及面大、使用面宽的研究生学位平台课程的优秀教材。今后，还将陆续扩大教材基金资助的范围，包括资助我校新增加的医学门类的有关教材的出版。

这次推出的研究生教材的基本特点是：符合该学科教学大纲的基本要求，有较强的理论性和系统性。它既反映了该学科发展的新知识、新动向、新成就，也反映了我校教师在该门学科教学与科研中的成果与经验。

前人说得好，古今之成大学问、大事业者，都必须经过三种境界：“昨夜西风凋碧树，独上高楼，望尽天涯路”，此第一境也；“衣带渐宽终不悔，为伊消得人憔悴”，此第二境也；“众里寻他千百度，回头蓦见，那人正在灯火阑珊处”，此第三境也。研究生的优秀教材的建设应该算作一种“大事业”。本教材的作者们对于研究生教育改革的执着追求，令人敬佩；他们的无私奉献精神，值得赞扬；他们所取得的教学科研成果应该积极推广，使它产生应有的社会效益，为百年名校增添光彩。我希望在首批及以后陆续出版的我校研究生教材中能出现“传诸后世”的佳作，更希望我校有更多教授、名家动手撰写研究生教材，为建设国内一流、在国际上有影响的新四川大学作出更大的贡献。

四川大学副校长
四川大学研究生院院长　刘应明教授
中国科学院院士

2001 年 3 月 8 日

PREFACE

This non-English major textbook for Ph. D.'s is based on the English Teaching Program of the State Education Commission. Candidates of Ph. D. are required to know the latest achievements of their own fields. They are also required to speak in the international academic conferences or publish their newly achieved researches to the world. English proficiency is highly important for them. As is said by Francis Bacon, "Reading makes a full man; conference a ready man, and writing an exact man""Knowledge is power", this book provides them with materials for a good command of English and brilliant thinking. Most of the texts are from celebrated English and American writers, such as Shakespeare, Dickens, Russell, Churchill, Faulkner. Some are from *Science Digest* and speeches of Nobel prize winners.

Analytical Guide for Study, Discussion and Writing are accompanied with it. Attached to the book are exercises to test reading speed and comprehension. As the editor of the book I wish to express my thanks to my readers whom I also wish successes in their careers.

Luo Yiyun

September 9, 1999

CONTENTS

LESSON ONE

Text A

The Computer and the Poet

Norman Cousins

Norman Cousins (b. 1912), holder of nearly two dozens honorary degrees, is the editor of *Saturday Review*. He has won numerous awards for journalism, and has written and edited many books.

Among his many activities, he is one of the Hiroshima Peace Center Associates, and has done much to advance educational radio and television.

The essential problem of man in a computerized age remains the same as it has always been.

That problem is not solely how to be more productive, more comfortable, more content, but how to be more sensitive, more sensible, more proportionate, more alive. The computer makes possible a phenomenal leap in human proficiency; it demolishes the fences around the practical and even the theoretical intelligence. But the question persists and indeed grows whether the computer will make it easier or harder for human beings to know who they really are, to identify their real problems, to respond more fully to beauty, to place adequate value on life, and to make their world safer than it now is.

Electronic brains can reduce the profusion of dead ends involved in vital research. But they can't eliminate the foolishness and decay that come from the unexamined life. Nor do they connect a man to the things he has to be connected to the reality of pain in others; the possibilities of creative growth in himself; the memory of the race; and the rights of the next generation.

The reason these matters are important in a computerized age is that there may be a tendency to mistake data for wisdom, just as there has always been a tendency to confuse logic with values, and intelligence with insight.

Unobstructed access to facts can produce unlimited good only if it is matched by the desire and ability to find out what they mean and where they would lead.

Facts are terrible things if left sprawling and unattended. They are too easily regarded as evaluated certainties rather than as the rawest of raw materials crying to be processed into the texture of logic. It requires a very unusual mind, Whitehead said, to undertake the analysis of a fact. The computer can provide a correct number, but it may be an irrelevant number until judgment is pronounced.

To the extent, then, that man fails to make the distinction between the intermediate operations of electronic intelligence and the ultimate responsibilities of human decision and conscience, the computer could prove a digression. It could obscure man's awareness of the need to come to terms with himself. It may foster the illusion that he is asking fundamental questions when actually he is asking only functional ones. It may be regarded as a substitute for intelligence instead of an extension of it. It may promote undue confidence in concrete answers. "If we begin with certainties," Bacon said, "we shall end in doubts but if we begin with doubts, and we are patient with them, we shall end in certainties."

The computer knows how to vanquish error, but before we lose ourselves in celebration of the victory, we might reflect on the great advances in the human situation that have come about because men were challenged by error and would not stop thinking and probing until they found better approaches for dealing with it. "Give me a good fruitful error, full of seeds, bursting with its own corrections," Ferris Greenslet wrote. "You can keep your sterile truth for yourself."

The biggest single need in computer technology is not for improved circuitry, or enlarged capacity, or prolonged memory, or miniaturized containers, but for better questions and better use of the answers. Without taking anything away from the technicians, we think it might be fruitful to effect some sort of junction between the computer technologist and the poet. A genuine purpose may be served by turning loose the wonders of the creative imagination on the kinds of problems being put to electronic tubes and transistors. The company of poets may enable the men who tend the machines to see a larger panorama of possibilities than technology alone may inspire.

A poet, said Aristotle, has the advantage of expressing the universal; the specialist expresses only the particular. The poet, moreover, can remind us that man's greatest energy comes not from his dynamos but from his dreams. The notion of where a man ought to be instead of where he is; the liberation from cramped prospects; the intimations of immortality through art—all these proceed naturally out of dreams. But the quality of a man's dreams can only be a

reflection of his subconscious. What he puts into his subconscious, therefore, is quite literally the most important nourishment in the world.

Nothing really happens to a man except as it is registered in the subconscious. This is where event and feeling become memory and where the proof of life is stored. The poet—and we use the term to include all those who have respect for and speak to the human spirit—can help to supply the subconscious with material to enhance its sensitivity, thus safeguarding it. The poet, too, can help to keep man from making himself over in the image of his electronic marvels. For the danger is not so much that man will be controlled by the computer as that he may imitate it.

The poet reminds men of their uniqueness. It is not necessary to possess the ultimate definition of this uniqueness. Even to speculate on it is a gain.

Analytical Guide

This is a philosophical essay. Science and technology develop by leaps and bounds in the modern world. The ultimate machine, the electronic computer can design, can predict earthquakes, can tell the trend of businesses, can diagnose illnesses, can play chess, can compose music and do translation... It can flash out the answer within a second and it can also store the information for ages as one wishes. From these wonders, man begins to worry whether the electronic brain will substitute human brain.

From another angle, this essay discusses the fundamental problems of man; his pursuit, his happiness, his understanding of and response to beauty, to life, and to immortality.

By criticizing those who mistake data for wisdom, he quotes, "Facts are terrible things if left sprawling and unattended." It requires a very unusual mind to undertake the analysis of a fact. He also mentions although the computer knows how to vanquish error, human beings can find many seeds through a good fruitful error. Maybe it means that failure is the mother of success.

From the topic "The Computer and the Poet" we see the computer is not everything. It is human dreams, his creative works that prove him unique. Dreams in man's subconsciousness might be the most important nourishment in the world.

Man is unique in wisdom, in creativeness, and in pursuit. The ultimate

machine—the computer can not substitute a human brain but it can work under his guidance.

Notes to the Text

1. Whitehead, Alfred North (1861 – 1947), British mathematician and philosopher. With Bertrand Russell he wrote "Principia Mathematica" (1910 – 1913) in which the fundamental propositions of logic and mathematics are derived from a few basic assumptions. In "Concept of Nature" (1920) and "Principle of Relativity" (1922) he developed an alternative to Einstein in physics, and in "Process and Reality" (1927 – 1929) a "philosophy of organism". Opposing positive and antireligious science, he sought to establish a modern philosophy which would take account of religious experience as well as of the 20th century physics and sociology.
2. Bacon, Francis (1561 – 1626), English statesman, philosopher and essayist. In natural philosophy he completed the break from the medieval scholastic method, laid down the first time a classification of the natural sciences, and founded a new inductive method of reasoning which challenged traditional authority (and revaluation) and prepared the way for modern experimental science. The *Essays* (1st edition 1597) is his chief literary work.
3. Aristotle (384 – 322 B.C.), Greek philosopher, pupil of Plato. His philosophy grew away from the idealism of Plato and became increasingly concerned with science and the phenomena of the world. His analyses were original and profound and his methods exercised an enormous influence on all subsequent thought.

Words and Expressions for Dictionary Study

sensible	_____	speculate	_____
phenomenal	_____	gain	_____
demonish	_____	respond to	_____
profusion	_____	unobstructed	_____
sprawling	_____	irrelevant	_____
digression	_____	crying to be done	_____

sterile _____ circuitry _____

miniaturize _____ make over _____

junction _____ dynamos _____

have respect for _____

Analytical Questions

1. Cousins is aware of the tremendous value of computers; what, then, is his objection to them? Does he really object to computers themselves?
2. Examine the list of "connections" which Cousins is afraid might be lost (Para. 2). How could computers cause us to lose these things? Do you think Cousins is unduly worried?
3. Does Cousins make clear what use poets might be to computer experts? Cousins probably does not expect anyone to use his suggestions; why does he offer it?
4. What is the contrast Cousins draws between the contribution to knowledge of computers and poets? Do you agree with his claim for the value of dreams?
5. On what grounds does Cousins argue that "error" can be more useful than "truth"?
6. Is it possible to make an extension from the computers Cousins discusses to all modern technology? Can you think of any instances in which we have become the victim of our inventions?
7. Computers and poets do not seem to be in the same class; is Cousins developing an analogy here, or a genuine contrast?
8. What is the basis of comparison between computers and poets?
9. Examine the final brief paragraph. Cousins does not refer to computers here; does he nevertheless intend an implied contrast?
10. Cousins does not mention poets until the last paragraph; would you say, then, that his method of organization is to discuss computers first, and then to develop the contrast with facts (refer to his definition of "poets")?
11. Does the discussion of dreams seem to you irrelevant? How might Cousins have tied it more closely to his suggestion that poets be advisers to computer programmers?

Text B

Automation

L. G. Alexander

One of the greatest advances in modern technology has been the invention of computers. They are already widely used in industry and in universities and the time may come when it will be possible for ordinary people to use them as well. Computers are capable of doing extremely complicated work in all branches of learning. They can solve the most complex mathematical problems or put thousands of unrelated facts in order. These machines can be put to varied uses. For instance, they can provide information on the best way to prevent traffic accidents, or they can count the number of times the word *and* has been used in the Bible. Because they work accurately and at high speeds, they save research workers years of hard work. This whole process by which machines can be used to work for us has been called automation. In the future, automation may enable human beings to enjoy far more leisure than they do today. The coming of automation is bound to have important social consequences.

Some time ago an expert on automation, Sir Leon Bagrit, pointed out that it was a mistake to believe that these machines could "think". There is no possibility that human beings will be "controlled by machines". Though computers are capable of learning from their mistakes and improving on their performance, they can never, as it were, lead independent lives, or "rule the world" by making decisions of their own.

Sir Leon said that in the future, computers would be developed which would be small enough to carry in the pocket. Ordinary people would then be able to use them to obtain valuable information. Computers could be plugged into a national

network and be used like radios. For instance, people going on holiday could be informed about weather conditions, car drivers could be given alternative routes when there are traffic jams. It will also be possible to make tiny translating machines. This will enable people who do not share a common language to talk to each other without any difficulty or to read foreign publications. It is impossible to assess the importance of a machine of this sort, for many international misunderstandings are caused simply through our failure to understand each other. Computers will also be used in hospitals. By providing a machine with a patient's symptoms, a doctor will be able to diagnose the nature of his illness. Similarly, machines could be used to keep a check on a patient's health record and bring it up to date. Doctors will therefore have immediate access to a great many facts which will help them in their work. Bookkeepers and accountants, too, could be relieved of dull clerical work, for the tedious task of compiling and checking lists of figures could be done entirely by machines. Computers are the most efficient servants man has ever had and there is no limit to the way they can be used to improve our lives.

Questions for Discussion

1. What is automation?
2. How do computers save research workers years of hard work?
3. Why is it a mistake to believe that computers can think?

Learn to write precise this way.

Precise:

Computers can be used not only by scientists but by ordinary people as well. People going on holiday could learn what the weather be like by using pocket computers. Car drivers could choose after native routes in case of a traffic jam from information supplied by a computer. Computers could be used in translating foreign languages and in medical work. Bookkeepers and accountants would be relieved of tedious clerical work which would be done by computers.

LESSON TWO

Text A

The World As I See It

Albert Einstein

How strange is the lot of us mortals! Each of us is here for a brief sojourn; for what purpose he knows not, though he sometimes thinks he senses it. But without deeper reflection one knows from daily life that one exists for other people—first of all for those upon whose smiles and well-being our own happiness is wholly dependent, and then for the many, unknown to us, to whose destinies we are bound by the ties of sympathy. A hundred times every day I remind myself that my inner and outer life are based on the labors of other men, living and dead, and that I must exert myself in order to give in the same measure as I have received and am still receiving. I am strongly drawn to a frugal life and am often oppressively aware that I am engrossing an undue amount of the labor of my fellow-man. I also believe that a simple and unassuming life is good for everybody, physically and mentally.

I do not at all believe in human freedom in the philosophical sense. Everybody acts not only under external compulsion but also in accordance with inner necessity. Schopenhauer's saying, "A man can do what he wants, but not want what he wants," has been a very real inspiration to me since my youth; it has been a continual consolation in the face of life's hardships, my own and others', and an unfailing well-spring of tolerance. This realization mercifully mitigates the easily paralyzing sense of responsibility and prevents us from taking ourselves and other people all too seriously; it is conducive to a view of life which, in particular, gives humor its due.

To inquire after the meaning or object of one's own existence or that of all creatures has always seemed to me absurd from an objective point of view. And