

Unit III

Detailed:

Bertrand Russel's Is Science Superstitious

Non-Detailed:

J.B.Priestley's Travel by Train

IS SCIENCE SUPERSTITIOUS?

MODERN life is built on science in two respects. On the one hand, we all depend upon scientific inventions and discoveries for our daily bread and for our comforts and amusements. On the other hand, certain habits of mind, connected with a scientific outlook, have spread gradually during the past three centuries from a few men of genius to large sections of the population. These two operations of science are bound up together when we consider sufficiently long periods, but either might exist without the other for several centuries. Until near the end of the eighteenth century the scientific habit of mind did not greatly affect daily life, since it had not led to the great inventions that revolutionized industrial technique. On the other hand, the manner of life produced by science can be taken over by populations which have only certain practical rudiments of scientific knowledge; such populations can make and utilize machines invented elsewhere, and can even make minor improvements in them. If the collective intelligence of mankind were to degenerate, the kind of technique and daily life which science has produced would nevertheless survive, in all probability, for many generations. But it would not survive for ever, because, if seriously disturbed by a cataclysm, it could not be reconstructed.

(The scientific outlook, therefore, is a matter of importance to mankind, either for good or evil. But the scientific outlook itself is twofold, like the artistic outlook. The creator and the appreciator

are different people and require quite different habits of mind. The scientific creator, like every other, is apt to be inspired by passions to which he gives an intellectualist expression amounting to an undemonstrated faith, without which he would probably achieve little. The appreciator does not need this kind of faith; he can see things in proportion and make necessary reservations, and may regard the creator as a crude and barbaric person in comparison with himself. As civilization becomes more diffused and more traditional, there is a tendency for the habits of mind of the appreciator to conquer those who might be creators, with the result that the civilization in question becomes Byzantine¹ and retrospective. Something of this sort seems to be beginning to happen in science. The simple faith which upheld the pioneers is decaying at the centre. Outlying nations, such as the Russians, the Japanese, and the Young Chinese, still welcome science with seventeenth-century fervour; so do the bulk of the populations of Western nations. But the high priests begin to be weary of the worship to which they are officially dedicated. The pious young Luther² revered a free-thinking Pope, who allowed oxen to be sacrificed to Jupiter on the Capitol³ to promote his recovery from illness. So in our day those remote from centres of culture have a reverence for science which its augurs no longer feel. The "scientific" materialism of the Bolsheviks, like early German Protestantism, is an attempt to preserve the old piety in a form which both friends and foes believe to be new. But their fiery belief in the verbal inspiration of Newton has only accelerated the spread of scientific scepticism among the "bourgeois"

scientists of the West. Science, as an activity recognized and encouraged by the State, has become politically conservative, except where, as in Tennessee,⁴ the State has remained pre-scientific. The fundamental faith of most men of science in the present day is not in the importance of preserving the *status quo*. Consequently they are very willing to claim for science no more than its due, and to concede much of the claims of other conservative forces, such as religion.

They are faced, however, with a great difficulty. While the men of science are in the main conservative, science is still the chief agent of rapid change in the world. The emotions produced by the change in Asia, in Africa, and among the industrial populations of Europe are often displeasing to those who have a conservative outlook. Hence arises a hesitation as to the value of science which has contributed to the scepticism of the High Priests. If it stood alone, it might be unimportant. But it is reinforced by genuine intellectual difficulties which, if they prove insuperable, are likely to bring the era of scientific discovery to a close. I do not mean that this will happen suddenly. Russia and Asia may continue for another century to entertain the scientific faith which the West is losing. But sooner or later, if the logical case against this faith is irrefutable, it will convince men who, for whatever reason, may be momentarily weary; and, once convinced, they will find it impossible to recapture the old glad confidence. The case against the scientific *credo* deserves, therefore, to be examined with all care.

When I speak of the scientific *credo*, I am not

speaking merely of what is logically implied in the view that, in the main, science is true; I am speaking of something more enthusiastic and less rational—namely, the system of beliefs and emotions which lead a man to become a great scientific discoverer. The question is: Can such beliefs and emotions survive among men who have the intellectual powers without which scientific discovery is impossible?

Two very interesting recent books will help us to see the nature of the problem. The books I mean are: Burt's⁵ *Metaphysical Foundations of Modern Science* (1924) and Whitehead's⁶ *Science and the Modern World* (1926). Each of these criticizes the system of ideas which the modern world owes to Copernicus,⁷ Kepler,⁸ Galileo,⁹ and Newton—the former almost wholly from an historical standpoint, the latter both historically and logically. Dr. Whitehead's book is the more important, because it is not merely critical, but constructive, and aims at supplying an intellectually satisfying basis for future science, which is to be at the same time emotionally satisfying to the extra-scientific aspirations of mankind. I cannot accept the logical arguments advanced by Dr. Whitehead in favour of what may be called the pleasant parts of his theory: while admitting the need of an intellectual reconstruction of scientific concepts. I incline to the view that the new concepts will be just as disagreeable to our non-intellectual emotions as the old once, and will therefore be accepted only by those who have a strong emotional bias in favour of science. But let us see what the argument is.

There is, to begin with, the historical aspect. "There can be no living science," says Dr. Whitehead, "unless there is a widespread instinctive conviction in the existence of an *order of things*, and, in particular, of an *order of Nature*." Science could only have been created by men who already had this belief, and therefore the original sources of the belief must have been pre-scientific. Other elements also went to make up the complex mentality required for the rise of science. The Greek view of life, he maintains, was predominantly dramatic, and therefore tended to emphasize the end rather than the beginning: this was a drawback from the point of view of science. On the other hand, Greek tragedy contributed the idea of Fate, which facilitated the view that events are rendered necessary by natural laws. "Fate in Greek Tragedy becomes the order of Nature in modern thought." The necessitarian view was reinforced by Roman law. The Roman Government, unlike the Oriental despot, acted (in theory at least) not arbitrarily, but in accordance with rules previously laid down. Similarly, Christianity conceived God as acting in accordance with laws, though they were laws which God Himself had made. All this facilitated the rise of the conception of Natural Law, which is one essential ingredient in scientific mentality.

The non-scientific beliefs which inspired the work of sixteenth- and seventeenth-century pioneers are admirably set forth by Dr. Burtt, with the aid of many little-known original sources. It appears, for example, that Kepler's¹⁰ inspiration was, in part, a sort of Zoroastrian¹¹ sun-worship which he adopted at a critical period of his youth. "It was

primarily by such considerations as the deification of the sun and its proper placing at the centre of the universe that Kepler in the years of his adolescent fervour and warm imagination was induced to accept the new system." Throughout the Renaissance there is a certain hostility to Christianity, based primarily upon admiration for Pagan antiquity; it did not dare to express itself openly as a rule, but led, for example, to a revival of astrology, which the Church condemned as involving physical determinism. The revolt against Christianity was associated with superstition quite as much as with science—sometimes, as in Kepler's case, with both in intimate union.

But there is another ingredient, equally essential, but absent in the Middle Ages, and not common in antiquity—namely, an interest in "irreducible and stubborn facts". Curiosity about facts is found before the Renaissance in individuals—for example, the Emperor Frederik II¹² and Roger Bacon;¹³ but at the Renaissance it suddenly becomes common among intelligent people. In Montaigne¹⁴ one finds it without the interest in Natural Law; consequently Montaigne was not a man of science. A peculiar blend of general and particular interests is involved in the pursuit of science; the particular is studied in the hope that it may throw light upon the general. In the Middle Ages it was thought that, theoretically, the particular could be deduced from general principles; in the Renaissance these general principles fell into disrepute, and the passion for historical antiquity produced a strong interest in particular occurrences. This interest, operating upon minds trained by the Greek, Roman, and scholastic traditions, produced

at last the mental atmosphere which made Kepler and Galileo possible. But naturally something of this atmosphere surrounds their work, and has travelled with it down to their present-day successors. "Science has never shaken off its origin in the historical revolt of the later Renaissance. It has remained predominantly an anti-rationalistic movement, based upon a naive faith. What reasoning it has wanted has been borrowed from mathematics, which is a surviving relic of Greek rationalism, following the deductive methods. Science repudiates philosophy. In other words, it has never cared to justify its faith or to explain its meaning, and has remained blandly indifferent to its refutation by Hume."¹⁵

Can science survive when we separate it from the superstitions which nourished its infancy? The indifference of science to philosophy has been due, of course, to its amazing success; it has increased the sense of human power, and has therefore been on the whole agreeable, in spite of its occasional conflicts with theological orthodoxy. But in quite recent times science has been driven by its own problems to take an interest in philosophy. This is especially true of the theory of relativity, with its merging of space and time into the single space-time order of events. But it is true also of the theory of quanta,¹⁶ with its apparent need of discontinuous motion. Also, in another sphere, physiology and bio-chemistry are making inroads on psychology which threaten philosophy in a vital spot; Dr. Watson's Behaviourism¹⁷ is the spear-head of this attack, which, while it involves the opposite of respect for philosophic tradition, nevertheless neces-

sarily rests upon a new philosophy of its own. For such reasons science and philosophy can no longer preserve an armed neutrality, but must be either friends or foes. They cannot be friends unless science can pass the examination which philosophy must set as to its premises. If they cannot be friends, they can only destroy each other; it is no longer possible that either alone can remain master of the field.

Dr. Whitehead offers two things, with a view to the philosophical justification of science. On the one hand, he presents certain new concepts, by means of which the physics of relativity and quanta can be built up in a way which is more satisfying intellectually than any that results from piecemeal amendments to the old conception of solid matter. This part of his work, though not yet developed with the fullness that we may hope to see, lies within science as broadly conceived, and is capable of justification by the usual methods which lead us to prefer one theoretical interpretation of a set of facts to another. It is technically difficult, and I shall say no more about it. From our present point of view, the important aspect of Dr. Whitehead's work is its more philosophical portion. He not only offers us a better science, but a philosophy which is to make that science rational, in a sense in which traditional science has not been rational since the time of Hume. This philosophy is, in the main, very similar to that of Bergson.¹⁸ The difficulty which I feel here is that, in so far as Dr. Whitehead's new concepts can be embodied in formulae which can be submitted to the ordinary scientific or logical tests, they do not seem to involve

his philosophy; his philosophy, therefore, must be accepted on its intrinsic merits. We must not accept it merely on the ground that, if true, it justifies science, for the question at issue is whether science can be justified. We must examine directly whether it seems to us to be true in fact; and here we find ourselves beset with all the old perplexities.

I will take only one point, but it is a crucial one. Bergson, as every one knows, regards the past as surviving in memory, and also holds that nothing is ever really forgotten; on these points it would seem that Dr. Whitehead agrees with him. Now this is all very well as a poetic way of speaking, but it cannot (I should have thought) be accepted as a scientifically accurate way of stating the facts. If I recollect some past event—say my arrival in China—it is a mere figure of speech to say that I am arriving in China over again. Certain words or images occur when I recollect, and are related to what I am recollecting, both causally and by a certain similarity, often little more than a similarity of logical structure. The scientific problem of the relation of a recollection to a past event remains intact, even if we choose to say that the recollection consists of a survival of the past event. For, if we say this, we must nevertheless admit that the event has changed in the interval, and we shall be faced with the scientific problem of finding the laws according to which it changes. Whether we call the recollection a new event or the old event greatly changed can make no difference to the scientific *problem*.

The great scandals in the philosophy of science ever since the time of Hume have been causality

and induction. We all believe in both, but Hume made it appear that our belief is a blind faith for which no rational ground can be assigned. Dr. Whitehead believes that his philosophy affords an answer to Hume. So did Kant.¹⁰ I find myself unable to accept either answer. And yet, in common with every one else, I cannot help believing that there must be an answer. This state of affairs is profoundly unsatisfactory; and becomes more so as science becomes more entangled with philosophy. We must hope that an answer will be found; but I am quite unable to believe that it has been found.

Science as it exists at present is partly agreeable, partly disagreeable. It is agreeable through the power which it gives us of manipulating our environment, and to a small but important minority it is agreeable because it affords intellectual satisfactions. It is disagreeable because, however we may seek to disguise the fact, it assumes a determinism which involves, theoretically, the power of predicting human actions; in this respect it seems to lessen human power. Naturally people wish to keep the pleasant aspect of science without the unpleasant aspect; but so far the attempts to do so have broken down. If we emphasize the fact that our belief in causality and induction is irrational, we must infer that we do not know science to be true, and that it may at any moment cease to give us the control over the environment for the sake of which we like it. This alternative, however, is purely theoretical; it is not one which a modern man can adopt in practice. If, on the other hand, we admit the claims of scientific method, we cannot avoid the conclusion that causality and induction are

applicable to human volitions as much as to anything else. All that has happened during the twentieth century in physics, physiology, and psychology goes to strengthen this conclusion. The outcome seems to be that, though the rational justification of science is theoretically inadequate, there is no method of securing what is pleasant in science without what is unpleasant. We can do so, of course, by refusing to face the logic of the situation; but, if so, we shall dry up the impulse to scientific discovery at its source, which is the desire to understand the world. It is to be hoped that the future will offer some more satisfactory solution of this tangled problem.

STOICISM AND MENTAL HEALTH*

By means of modern psychology, many educational problems which were formerly tackled (very unsuccessfully) by sheer moral discipline are now solved by more indirect but also more scientific methods. There is, perhaps, a tendency, especially among the less well informed devotees of psychoanalysis, to think that there is no longer any need of stoic self-command. I do not hold this view, and in the present essay I wish to consider some of the situations which make it necessary, and some of the methods by which it can be created in young people; also some of the dangers to be avoided in creating it.

Let us begin at once with the most difficult and most essential of the problems that call for stoicism: I mean, Death. There are various ways of attempting to cope with the fear of death. We may try to ignore it; we may never mention it, and always try to turn our thoughts in another direction when we find ourselves dwelling on it. This is the method of the butterfly people in Wells's *Time Machine*¹. Or we may adopt the exactly opposite course, and meditate continually concerning the brevity of human life, in the hope that familiarity will breed contempt; this was the course adopted by Charles V² in his cloister after his abdication. There was a Fellow of a Cambridge College who even went so far as to sleep with his coffin in the room, and who used to go out on the College lawns with a spade

* Written in 1928.

- 18 **Battle of Waterloo.** June 18, 1815. Battle where Napoleon was finally defeated in the Napoleonic Wars by English, Prussian and other allied armies under Wellington and Blucher. Belgian village near Brussels.
- 19 **Blucher.** (1742-1819). Prussian General at Battle of Waterloo. Brought in his troops at a critical point in the battle.
- 20 **Kaiser.** William II of Germany (1859-1941). Became Kaiser of Germany in 1888. Led the German expansionist movement which resulted in the war of 1914-1918. Abdicated in 1918 and retired to Holland.
- 21 **Kolchak or Denikin.** Two leaders of the revolts in 1920 against the new Russian Communist state of Lenin. Although supported by Britain and U.S.A., these revolts ended in failure.
- 22 **George Washington.** (1732-1799). The military leader of the American colonies in their revolt against England during the American War of Independence (1775-83). Became first president of U.S.A., 1789. Regarded as the founder of U.S.A. The reference here is to his exceptionally high moral principles.
- 23 **Alexander Block.** Russian poet of the 20th Century who refused to accept the Marxist principles.
- 24 **Kropotkin, Prince Peter** (1842-1921). Russian revolutionary leader of 19th Century. Born in Moscow. Lived a great part of his life in England. His famous book—*The Conquest of Bread*.
- 25 **Dreyfus Affair.** Alfred Dreyfus (1859-1935) centre of scandal in French military and political affairs. He was unjustly accused of treachery and unjustly found guilty. It was claimed that his Jewish religion had prejudiced his case. He was retried in 1899 and in 1906 finally acquitted. The scandal rocked French politics.
- 26 **Standard Oil Company.** The great oil company of America which was always accused of trying to dominate the market for oil by securing a monopoly and was attacked for its policy towards its workers.
- 27 **Moniteur.** French newspaper of the Napoleonic period organised by the government.
- 28 **Lenin.** (1870-1924). Great Russian Revolutionary leader. Responsible for revolution in 1906 and for the creation of the U.S.S.R. in 1917. Disciple of Karl Marx.
- 29 **Trotsky.** (1877-1944). Organised with Lenin the Russian Revolution. Fled from Stalin in 1927. Believed in world revolution of Marxism. Killed in Mexico, 1944.

- 30 **Poison gas.** Used in war 1917-18 in France to end stalemate of trench warfare. Included mustard gas and luviste, derivatives of chlorine.
- 31 **Yellow Press.** That section of the press that advocated mass propaganda for colonialism.
- 32 **Martian.** Supposed inhabitant of the planet Mars.

IS SCIENCE SUPERSTITIOUS?

- 1 **Byzantine.** Belonging to the Eastern Empire of Constantinople from 6th to 15th Centuries.
- 2 **Luther, Martin** (1483-1546). German Protestant leader who started the Reformation in 1517 when he nailed a list of 95 objections to the Indulgences (popularly believed to be pardons). Professor of Theology of Wittenberg.
- 3 **Capitol.** One of the 7 hills of Rome. The Temple of Jupiter was sited on the Capitol.
- 4 **Tennessee.** One of the states in the Mississippi Valley of the U.S.A. Capital, St. Paul's.
- 5 **Burt.** Historian and author.
- 6 **Whitehead.** Alfred (1823-1905). Philosopher and mathematician. One of his greatest works—*Principles of Mathematics* (written in collaboration with Bertrand Russell).
- 7 **Copernicus** (1473-1543). Polish astronomer. Propounded the theory that the earth moved round the sun and revolved around itself. His famous book—*De Revolutionibus*.
- 8 **Kepler, Johann** (1571-1630). Evolved the laws of planetary motion.
- 9 **Galileo** (1564-1642). Great Italian astronomer. Made the first successful telescope. Demonstrated the laws relating to the pendulum and the velocity of falling bodies.
- 10 **Kepler.** See 8 above.
- 11 **Zoroastrian.** A religion of Ancient Persia founded by Zoroaster who lived about 1000 B.C.
- 12 **Emperor Frederik II** (1194-1250). Became Emperor of the Holy Roman Empire, 1220. King of Sicily.

- 13 **Roger Bacon** (1214-94). Born in Somerset, England. Pioneer in experimental research. Taught at Oxford and Paris. One of the greatest of the early scientists.
- 14 **Montaigne**. Famous French essayist who lived 1533-92.
- 15 **David Hume** (1711-76). Scottish philosopher. He demonstrated by faultless logic in his book **Treatise on Human Nature** the case for complete scepticism.
- 16 **Theory of Quanta**. The scientific theory that accounts for the stability of atoms, by arguing that in radiation energy of electrons comes out in approximate quanta not as a stream.
- 17 **Dr. Watson's Behaviourism**. Watson was the advocate of the psychological theory that all human actions could be analysed into stimulus and response and provided the right stimulus was applied action could be conditioned.
- 18 **Bergson, Henri** (1859-1941). French writer and philosopher who worked out the theory of creative evolution.
- 19 **Kant Immanuel** (1724-1804). One of the greatest philosophers of all time. Born at Konigsberg, Germany. His most important books are **Critique of Pure Reason**, **Critique of Practical Reason**, **Critique of Judgment**.

STOICISM AND MENTAL HEALTH

- 1 **Wells' "Time Machine"**. H. G. Wells, 1866-1946. Scientific novelist and historian. Prolific author who made astonishing predictions of historic events.
- 2 **Charles V** (1500-1558). Emperor of the Holy Roman Empire, 1519. For 40 years most powerful ruler in Europe. King of Spain. Abdicated in 1556 when at the height of his power.
- 3 **F. W. H. Myers**. (1843-1901) Poet. Writer of books on Human Personality. School inspector from 1872.
- 4 **Samuel Butler** (1835-1902). Writer and critic, particularly of the trends of industrial civilisation of his period. Two most famous books—**Erewhon** (Nowhere) and **The Way of all Flesh**.
- 5 **Sadism**. Love of cruelty for its own sake—especially in matters of sex. Word comes from French Marquis de Sade (1740-1814).

THE ANCESTRY OF FASCISM

- 1 **George I** (1660-1727). Became King of England, 1714 and started the Hanoverian line of monarchs. Could do little English and left state of affairs to advisers, the chief of whom was Sir Robert Walpole.
- 2 **Adam Smith** (1723-90). Author of first great textbook on political economy (or economics)—**The Wealth of Nations** published in 1776.
- 3 **Fichte, Johann** (1762-1814). German thinker. Violent nationalist whose ideas later inflamed Nazism. Chief book—**On the Notion of the Theory of Science**.
- 4 **Communist Manifesto**. The Pamphlet written by Karl Marx and published in 1848 which sets out the essential ideas of Communism.
- 6 **Baconian**. Belonging to Francis Bacon (1561-1626). 2nd Chancellor of England, 1618. Bacon advocated scientific methods of thought. Wrote **The New Learning** and **Advancement of Learning** 1605. New Atlantis. Now chiefly remembered for his **Essays**.
- 7 **Aristotelian**. Belonging to Aristotle, one of the greatest of the Greek thinkers (384-322 B.C.). He was tutor to Alexander the Great. He mapped out the fields of science. His work dominated the life and thought of the Middle Ages.
- 8 **Toryism**. Tory—name of the Conservative party in England—usually associated with the older and more traditional section of the party.
- 9 **Esoteric**. Private, exclusive, individual—meant only for a few members of a small highly selective group.
- 10 **Kant**. See Note 19, page 148.
- 11 **Fichte**. See Note 3 above.
- 12 **National Socialism**. Another name for the Nazi party in Germany from 1920 to 1940. It was intensely nationalist but had no reference to socialist principles. Its leader was Adolf Hitler.
- 13 **Mohammedan**. The religion of Mohamet the prophet (570-632 A.D.). The Bible of the religion which predominates in the Middle East is the **Koran** and its sacred city **Meecca**.
- 14 **Inquisition**. See Note 6, page 144.

J.B. Priestley

Remove an Englishman from his hearth and home, his centre of corporeal life, and he becomes a very different creature; one capable of sudden furies and roaring passions, a deep sea of strong emotions churning beneath his frozen exterior. I can pass at all times, for a quiet, neighbourly fellow, yet have I sat, more than once, in a railway carriage with black murder in my heart. At the mere sight of some probably inoffensive fellow-passenger my whole being will be invaded by a million devils of wrath, and I could do such bitter business as the day would quake to look on".

There is one type of traveller that never fails to rouse my quick hatred. She is a large, middle-aged woman, with a rasping voice and a face of brass. Above all things, she loves to invade smoking compartments that are already comfortably filled with a quiet company of smokers; she will come, bustling in, shouting over her shoulder at her last victim, a prostrate porter, and, laden with packages of all maddening shapes and sizes, she will glare defiantly about her until some unfortunate has given up his seat. She is often accompanied by some sort of contemptible, whining cur that is only one degree less offensive than its mistress. From the moment that she has wedged herself

in, there will be no more peace in the carriage, but simmering hatred, and everywhere dark looks and muttered threats. But everyone knows her. Courtesy and modesty perished in the world of travel on the day when she took her first journey; but it will not be long before she is in hourly danger of extinction, for there are strong men in our midst.

There are other types of railway travellers, not so offensive as the above, which combine all the bad qualities, but still annoying in a varying degree to most of us; and of these others I will enumerate one or two of the commonest. (First there are those who, when they would go on a journey, take all their odd chattels and household utensils and parcel them up in brown paper,) disdaining such things as boxes and trunks; furthermore, when such eccentrics have loaded themselves up with queer-shaped packages they will cast about for baskets of fruit and bunches of flowers to add to their own and other people's misery. Then there are the simple folk who are for ever eating and drinking in railway carriages. No sooner are they settled in their seats but they are passing each other tattered sandwiches and mournful scraps of pastry, and talking with their mouths full, and scattering crumbs over the trousers of fastidious old gentlemen. Sometimes they will peel and eat bananas with such rapidity that nervous onlookers are compelled to seek another compartment.

(Some children do not make good travelling companions, for they will do nothing but

whimper and howl throughout a journey, or they will spend all their time daubing their faces with chocolate or trying to climb out of the window. And the cranks are always with us; on the bleakest day, they it is who insist on all the windows being open, but in the sultriest season they go about in mortal fear of draughts, and will not allow a window to be touched.

More to my taste are the innocents who always find themselves in the wrong train. They have not the understanding necessary to fathom the time-tables, nor will they ask the railway officials for advice, so they climb into the first train that comes, and trust to luck. When they are being hurtled towards Edinburgh, they will suddenly look round the carriage and ask, with a mild touch of pathos, if they are in the right train for Bristol. And then, puzzled and disillusioned, they have to be bundled out at the next station, and we see them no more. I have often wondered, if these simple voyagers ever reach their destinations, for it is not outside probability that they may be shot from station to station, line to line, until there is nothing mortal left of them.

Above all other railway travellers, I envy the mighty sleepers, descendants of the Seven of Ephesus. How often, on a long, uninteresting journey, have I envied their sweet oblivion. With Lethe at their command, no dull, empty train journey, by day or night, has any terrors for them. Knowing the length of time they have to spend in the train, they compose themselves

and are off to sleep in a moment, probably enjoying the gorgeous adventures of dream while the rest of us are looking blankly out of the window or counting our fingers. Two minutes from their destination they stir, rub their eyes, stretch themselves, collect their baggage, and peering out of the window, murmur: "My station, I think." A moment later they go out, alert and refreshed. Lords of Travel, leaving us to our boredom.

Seafaring men make good companions on a railway journey. They are always ready for a pipe and a crack with any man, and there is usually some entertaining matter in their talk. But they are not often met with away from the coast towns. Nor do we often come across the confidential stranger in an English railway carriage though his company is inevitable on the Continent, and, I believe, in America. When the confidential stranger does make an appearance here, he is usually a very dull dog, who compels us to yawn through the interminable story of his life, and rides some wretched old hobby-horse to death.

There is one more type of traveller that must be mentioned here, if only for the guidance of the young and simple. He is usually an elderly man, neatly dressed, but a little tobacco-stained, always seated in a corner, and he opens the conversation by pulling out a gold hunter and remarking that the train is at least three minutes behind time. Then, with the slightest encouragement, he will begin to talk, and his talk will be all of trains. As some men

discuss their acquaintances, or others speak of violins, or roses, so he talks of trains, their history, their quality, their destiny. All his days and nights seem to have been passed in railway carriages, all his reading seems to have been in time-tables. He will tell you of the 12.35 from this place and the 3.49 from the other place, and how the 10.18 ran from So-and-so to So-and-so in such a time, and how the 8.26 was taken off and the 5.10 was put on; and the greatness of his subject moves him to eloquence, and there is passion and mastery in his voice, now wailing over a missed connection or a departed hero of trains, now exultantly proclaiming the glories of a non-stop express or a wonderful run to time. However dead you were to the passion, the splendour, the pathos, in this matter of trains, before he has done with you, you will be ready to weep over the 7.37 and cry out in ecstasy at the sight of the 2.52.

Beware of the elderly man who sits in the corner of the carriage and says that the train is two minutes behind time, for he is the Ancient Mariner of railway travellers, and will hold you with his glittering eye.

Travel by Train

J.B. Priestley
(1894-1984)

John Boynton Priestley was an English novelist; essayist, play wright, critic and broadcaster. His best-known novels are The Good Companions and Angel Pavement. Travel By Train is from his collection of essays Papers from Lilliput.

Glossary :

hearth	: fireside (figurative meaning, home)
corporal	: physical
furies	: wild anger
churning	: in an agitated state
frozen	: cold
with black murder:	with wicked thoughts of murder
"I could...look on":	from Shakespeare's <u>Hamlet</u> (I could commit murder)
rasping	: harsh; rough
face of brass	: insolent or haughty look
prostrate	: bent low (on account of heavy luggage)
defiantly	: in a challenging or fighting mood
whining	: wailing; cry of pain
wedged	: forced or thrust (oneself into a place)
simmering	: boiling; seething
dark	: angry
extinction	: destruction
enumerate	: mention one by one
chattels	: possessions; articles

disdaining	: rejecting; scorning
eccentrics	: odd or peculiar persons
queer	: odd
cast about	: look around/about
tattered	: in pieces
scraps of pastry	: pieces of cake
fastidious	: very careful in matters of dress, behaviour etc.
whimper and howl:	cry
daubing	: spreading
cranks	: eccentric persons
bleakest day	: day on which a very cold wind is blowing
sultriest	: hottest
draughts	: currents of cold air (learn the pronunciation of <u>draughts</u>)
innocents	: innocent people
understanding	: sense; intelligence
fathom	: used to mean, understand
hurtled	: hurled or moved rapidly
puzzled	: confused
disillusioned	: free from mistake; realise the mistake
bundled out	: sent out hurriedly
voyagers	: travellers
shot	: thrown or pushed about
Seven of Ephesus :	seven young christians fleeing the persecution of Emperor Decius hid themselves in a cave. The Emperor ordered the cave to be closed and they fell into

	sleep for 167 years. When the cave was opened, they narrated their story and died (Ephesus - name of a city in Europe)
oblivion	: forgetfulness
Lethe	: (Greek mythology) name of a river in the underworld causing forgetfulness
compose themselves	: calmly settle down; relax
gorgeous	: attractive, pleasant
Lords of Travel	: superior or dignified travellers
seafaring men	: sailors
pipe and a crack	: smoke and a joke
dog	: used in the sense of person
yawn	: open the mouth wide when sleepy or bored
rides...hobby horse to death	: talks beyond limit about his favourite subject (to death; overdo; beyond limit)
the young and simple	: young and simple people
12.35, 3.49	: trains identified by their time of arrival/departure
taken off	: cancelled
put on	: substituted
exultantly	: joyfully; triumphantly; enthusiastically
run to time	: train running to time
dead	: insensitive; indifferent

has done with : has finished with
 Ancient Mariner : the Ancient Mariner (sailor) in Coleridge's poem 'Rime of the Ancient Mariner' stops a wedding guest who is on his way to a wedding and relates his story

Exercises :

- I. i) Use the following expressions in sentences: capable of; pass for; cast about; has or have done with; ride one's hobby horse; at the sight of
- ii) Give the noun forms of: invade; defiant; combine; enumerate; entertain; proclaim; depart; compose
- iii) Give the adjectival forms of: murder; courtesy; danger; envy; eloquence

II. Comprehension

Answer the following questions, each in two or three sentences

1. How is an Englishman a different person, when he is away from home?
2. How does the middle-aged lady make a nuisance of herself in the compartment?
3. Which are the commonest type of passengers, who are a source of irritation to others?
4. Why are children not good travelling companions?
5. Why are some passengers called cranks?
6. Who are the Innocents? Why are they so called? What do they do?
7. Who are the Lords of Travel?

8. Why do sailors make good travelling companions?
9. What does the elderly man referred to in this essay talk about in the train?
10. What is the tone of the author in the essay Travel By Train?

III. Composition :

- A. Write paragraphs on the following topics, each in about 75 words
 1. (i) the middle-aged lady (ii) travellers with odd shaped luggage and (iii) travellers who eat and drink in the railway carriage
 2. (i) the "Innocents" in trains and (ii) "the Lords of Travel"
 3. (i) sailors and (ii) "the elderly man" as travelling companions
- B. Describe in about 200 words the various types of travellers enumerated by J.B. Priestley

IS SCIENCE SUPERSTITIOUS?

-BERTRAND RUSSEL

ABOUT THE AUTHOR:

Bertrand Russel was a British philosopher, essayist, logician, political activist, mathematician and social critic. He also did a lot of work in the areas of education, history, political theory and religious studies. Russel's 'The Problems of Philosophy' gives a clear view on philosophical subjects and values of philosophical knowledge. Although Bertrand Russel is famous in activist circles for his work against nuclear weapons and Western involvement in the Vietnam War. His political and social activism stretches so far beyond that.

SYNOPSIS:

Russel explains about the various scientific discoveries and its tangible benefits to human beings. Science has changed our outlook on life and society. Scientific knowledge and belief in scientific way of life is turning us into conservation. At the beginning of emergence of science, it was separated from philosophy but now it looked back at philosophy and got rid of its superstitions. Theory of relativity and theory of quanta are not important theories. Physiology and bio-chemistry are making penetration on psychology and threatening philosophy. Philosophy and science can either be friend or foes, but cannot remain without any relations. Science is a source of intellectual satisfaction. Many people neglect the negative impact of science and people have tried to get rid of its negative impacts, but in vain so far.

PHILOSOPHY:

The systematic study of 'nature' is called Science. A belief or notion, not based on reason or knowledge, in or of the ominous significance of a particular thing, circumstance, occurrence, proceeding or the like is called superstition. The word philosophy is derived from the Latin words 'Philia' means love and 'sophie' means wisdom. So philosophy means love and wisdom. The study of ideas of knowledge, truth, nature and meaning of life

is in short, referred to as philosophy. Philosophy includes metaphysics, logic, aesthetics, epistemology and ethics.

SCIENTIFIC DISCOVERIES:

Modern life is built on science in two respects, benefits of scientific inventions, discoveries for human beings and scientific outlook spread gradually during the past century. In science, creator is inspired by passion to which he gives an intellectual expression. He usually has an undemonstrated faith over science. But the appreciator does not need this kind of faith to appreciate its true worth. The appreciator of scientific invention regards the scientific creator as a crude and barbaric person. This is the exact way science emerged with its beautiful colors in this world.

DEVELOPMENT:

The scientific development and change produced in Asia, Africa and among the industrial populations of Europe are often displeasing to those who have a conservative outlook. In the middle ages, ancient or classical period scientific curiosity was limited to individuals. In Renaissance, this curiosity spread among large population and intelligent society. In middle ages, it was thought that science could be deduced from general principles. In Renaissance, the passion for historical antiquity produced a strong interest in particular occurrences. This interest, operating upon great minds trained by the Greek, Roman and scholastic traditions made possible the birth of Kepler and Galileo.

SCIENCE AND PHILOSOPHY:

Science has been driven by its own problems to take an interest in philosophy. Science and philosophy can no longer preserve an armed neutrality. Science and philosophy must be either friends or foes. They cannot be friends unless science can pass the examination which philosophy must be as to its premises. If they cannot be friends, they can only destroy each other. Physiology and bio-chemistry are making inroads on psychology which threaten philosophy in vital spot.

CONCLUSION:

Science is partly agreeable and partly disagreeable. Science has given us the power of manipulating our environment. It affords intellectual satisfaction to all those pondering minds. Science is considered partly disagreeable because it assumes a determinism which involves theoretically, the power of predicting human actions, in this respect, it seems to lessen manpower. Therefore, it is understandable to say that science is most definitely not superstitious at any cost.

TRAVEL BY TRAIN

ABOUT THE AUTHOR:

John Boynton Priestly (1894-1984) was an English novelist, dramatist, broad-caster and an essayist. He was born in Bradford, a city in the north of England. Priestly was educated at the Bell Vire Grammar school which he left at the age of sixteen to work as a junior clerk in the Swan Arcade. In 1914, he joined the army and served during the First World War and was wounded by the mortar fire. During the Second World War, he was a popular broad caster in the BBC radio. He gained reputation as a writer in 1922. Priestley was prolific writer with 42 plays, 37 works of fiction and 62 titles of non-fiction including essays to his credit. He was awarded the Order of Merit in 1977. Among his major works are the *The Good Companions*, *An Inspector Calls*, *Bright Day*, *Festival at Farbridge* and *The Image Men*.

TRAVEL BY TRAIN:

Travel by Train is a delightful piece of prose filled with light-hearted humor and caricatures. Humor is a comic or incongruous quality causing amusement. Caricature is a picture or description that exaggerates the appearance or behavior of a person in a humorous or a critical way. In this prose, Priestley describes short caricatures of,

1. The middle aged woman
2. The heavy carriers
3. The non-stop eaters
4. The noisy children
5. The cranks
6. The innocent people
7. The mighty sleepers
8. The seafaring men

9. The confidential strangers

10. The elderly men

THE MIDDLE AGED WOMAN:

Priestley explains the middle aged woman as a person with a rasping voice and a face of brass. She evades into the smoking compartments that are already filled with smoke. She is described as a person who is shouting and bustling and she is accompanied by a dog that is only degree less offensive than her.

THE HEAVY CARRIERS:

They are the passengers who would go on a journey taking all their old chattels and household utensils and parceling them up in brown paper. Furthermore, they also carry baskets of fruits and bunches of flowers to add to their own and others' misery.

THE NON STOP EATERS:

They are described as simply folks who board the railway carriage for the sole purpose of eating and drinking. Once they are settled, they pass each other tattled sandwiches and scraps of pastry and talking with their mouths full and scattering crumbs over the trousers of old gentlemen.

THE NOISY CHILDREN:

The noisy children are not good to travel with on a train journey. They whimper and howl throughout the journey. Although, they spend all their time daubing their faces with chocolate or trying to climb out of the window.

THE CRANKS:

The cranks are described as those who insist on keeping the windows open during the cold and desolate day. But they don't allow the windows to be open in the oppressively hot season due to the fear of cold air rushing in.

THE INNOCENT PEOPLE:

They are the ones who always board the wrong train. Neither do they have

the understanding to interpret the complicated railway time-tables nor do they ask the railway officials for advice. They climb into the train that comes first. In the midst of the journey, with the sudden look around the carriage, they enquire whether they are on the right train or not. The writer has often wondered whether these people will ever reach their destination.

THE MIGHTY SLEEPERS:

They are the ones who have sleep at their command. Once they get into the train, they compose themselves and are off to sleep in a moment. Two minutes or so from their destination, they wake up, collect their baggage and a moment later they go out alert and refreshed. The author describes these mighty sleepers as the descendants of the 'Seven of Ephesus.

(THE SEVEN OF EPHEBUS: It refers to the legend of seven noble Christians who lived in Ephesus, an ancient Greek city, who were fleeing the persecution of Emperor Decius. They took refuge in a cave. The Emperor knowing this, ordered for the caves to be closed. But as a heavenly intervention, these Christians fell into a deep sleep for 187 years. When the cave was opened, these men came to know that Christianity was established in their country; they narrated their story and died.)

THE SEAFARING MEN:

They make good companions on a railway journey because they are always ready for a crack with any man and there is always an entertaining matter in their talks. But they can only be met in the coastal towns.

THE CONFIDENTIAL STRANGERS:

The confidential strangers are rarely seen and are composed to a very dull dog, which compels the co-passenger to yawn through the lengthy story of his life. He takes pleasure on talking things of his own interest.

THE ELDERLY MAN:

The elderly man is a neatly dressed person who is always seated in a corner. He opens his conversation by pulling out a golden hunter and remarking that the train is at least three minutes behind time. And from

then on, his talks will be all on trains. The author warns the readers to be aware of the elderly man, for he is the Ancient Mariner of railway travelers.