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**REFLECTIONS ON PSYCHOLOGICAL
INSECURITY IN MODERN MAN**

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PREFACE

Presented here is a thought-provoking address on "Reflections on Psychological insecurity in Modern Man" delivered by Mr. Artur Isenberg under the chairmanship of the late Dr. M. V. Govindaswamy on 24th November, 1960, at the Indian Institute of World Culture, Bangalore. Mr. Artur Isenberg is Senior Ford Foundation Consultant, Southern Languages Book Trust, Madras.

REFLECTIONS ON PSYCHOLOGICAL INSECURITY IN MODERN MAN

Beneath a shell of self-assurance, modern man is ill at ease, The shell may glitter or even sparkle and, more likely than not, give the appearance of great strength and impenetrability. It is, however, a brittle affair, created by modern, man in a futile attempt to hide, from himself above all, his inner confusion, doubt, hesitancy, in brief his insecurity.

These states, of mind are of course closely inter-related and do in fact constitute, to use a modern psychological term, a dynamic complex of impressive, not to say frightening, energy. Under the tyranny of that complex, modern man— *normal* modern man—has become the increasingly restless and bewildered creature that h\$ is today.

Before any thought can be given to the urgent problem of arresting and reversing what I believe to be a genuine trend, we must know the condition itself quite thoroughly and understand its anamnesis, that is to say, we must try to trace back to Their source, or sources, the developments which have bred and nursed and shaped the] complex until it has achieved its present position of all but unlimited, Indeed still growing, power.

I must remove a possible source of misunderstanding, What I shall have to say is intended to relate to the general phenomenon of psychological insecurity in *normal* individuals and no attempt will therefore be made to deal with individual pathological cases of anxiety or compulsory doubts, except in -a cursory manner, though the borderline may be most tenuous. Let me also point out that while the tone of much of what I shall have to say may sound somewhat dogmatic?, my views themselves are tentative and subject to change in the light of changing conditions and knowledge. It would make this paper far too long and serve no Useful purpose if every statement were separately qualified. Let this general qualification then apply to all that follows.

I feel that I must dispose of one other point: it is neither, my view nor my claim that every modern individual is subject to the inner doubts and uncertainties which I have mentioned. My interest today is in the typical case rather than in cases of individual exceptions which, I believe, is just that.

My approach is admittedly impressionistic. I am concerned with certain large-scale aspects of the problem. A rigorous, scientific approach is, I think, still premature if indeed it should ever prove possible at all.

I take it for granted that modern man, and particularly the modern city-dweller of the western world, tends to be aware of certain insecurity, a malaise, an Unbehagen, which typically he seeks to hide from others and himself by a façade, a shell of aggressiveness, determination, self-assuredness, even boisterousness. But as I have said, the shell is brittle; and while his attempt to hide what lies beneath from others is often highly successful, he rarely if ever fully succeeds in hiding it from himself, at any rate for very long.

Here are some typical questions which he is asking himself and problems which worry him:

How secure is his present job? Should he stick to it? Might he not enjoy himself more if he took up a different occupation?

Should he get married? Is he sure that he is married to the right person? Should he have children?

And now and then, there are the eternal questions to confront him: what is the meaning of

life, the Purpose of living? Is it really worth all the hard work? Does death end everything?

You will have realized that some of the questions are quite old. They are cited there as examples on the assumption that modern man finds it more difficult to adopt a life-long attitude to the problems which they pose, more difficult to accept traditional so-called authoritative answer. I also believe that the total number of matters on which to be in doubt is larger for modern man and of concern to a larger number of people than in the past.

One need not be a Columbus to discover that the psychological insecurity with which we are concerned has made far greater inroads among people living in our big urban centres than among those living in villages. Please do not misunderstand: I am not arguing that insecurity is confined to city-dwellers and is unknown in rural areas. There can be no doubt that the Phenomenon which we are considering exists, as a process, in both environments. Our point is rather that the process has, by and large, made far greater gains in the city than in the village.

Leaving the justification to become apparent as our analysis progresses, let me propose a rough-and-ready analogy: in certain respects, city life is to rural life as the present is to the past.

It is evident that most social and technological innovations get their real start in a city, where they also produce a greater, more immediate impact. This is easily understandable because cities are usually the sites of research facilities-universities, etc., galleries where new art products can be shown, departmental stores where novelties are easily available and widely sold, places where fashions in dress are created; and so on and so forth. It takes a while for the people in the countryside to catch up with this city-bred innovation, and more often than not it happens that the city is off on a new series of innovation by the time the countryside has caught up with the earlier ones.

II

One of the many differences between the farmer and the city-dweller is that the former raises most, if not all, of his own food, whereas the latter characteristically does not raise any of his. He buys his meat from the butcher, his vegetables from the grocer, his bread and cakes from the baker. He is thus brought into contact with a number of professions which need not at all exist for the farmer as far as obtaining food is concerned.

If something goes wrong with the farmer's ox-cart, the chances are that he can and will fix it himself. If something goes wrong with the city-dweller's car or even bicycle, the chances are that he will have to have it fixed by a mechanic.

The farmer's wife is apt to make her own clothes while her city sister will probably go to a store to buy hers.

The differences between farm and town are of course much less marked in the western world than those between the present and the past.

At some stage in pre-history every man was entirely dependent upon his own with to secure the things he needed: he had to find and get his own food, fashion his own clothes such as they were, be his own doctor, build his own shelter and so on. In the course of time, specialists took over these tasks and the others, that is to say, non-specialists, became more and more dependent upon them.

We note thus a process of specialization which has made greater inroads in urban than in

rural communities; and even the most cursory glance at recent history shows that this process is constantly gaining momentum.

A few examples may be instructive.

At one time people who were sick went to the doctor. A little later they had to choose between a physician and a surgeon; still later between the general medical practitioner and the specialist, say, in internal medicine. Today, they might have to consult a heart-specialist, a kidney specialist; and it is only a slight exaggeration to say that there are almost as many medical specialists as there are bodily organs. The history of dental medicine shows the same trend, though perhaps not yet quite so marked. But even within the last few years there have grown up specialized fields in dental medicine, as, for example, those of the orthodontist and the periodontist.

A generation or two ago there was there was the electrician, a jack-of-all-trades working in all fields of electricity. Today there is the radio expert and quite recently the expert on transistors, the television expert, the radar expert, the expert in electronics, the expert in cybernetics. At one time the term "merchant" was enough to describe the occupation of an individual. In his one-room store he sold household appliances, yard goods and groceries. His one-room store has either grown into a gigantic departmental store with its specialized units, or now only sells one of the three types of products-at least in the majority of cases in large urban centres.

Specialization results in better products and services. But there is a reverse side of the coin; it increases the dependence of the non-specialist majority, and dependence is normally not an easy matter for an individual to manage psychologically. If prolonged and extensive, it will in and of itself induce a latent feeling of insecurity, for if you are dependent upon someone to meet a basic requirement such as food, you are also aware of the possibility of a sudden and possibly prolonged stoppage. The man who gets his milk from a cow in this own backyard need not concern himself with the strike of dairy-truck drivers in a big city, whereas such a strike would be of very real concern to the dependent city-dwellers.

One ideal of the classical Greek and Roman scholar was to be a polyhistor, a person abreast of the total scientific knowledge of his age. Aristotle, for example, was regarded as a polyhistor. It is probable that neither he nor anyone in recorded history ever actually deserved such a title. Today, polyhistorship has become totally untenable even as an ideal such as, let us say, one-world government.

To realize the progress made by specialization, let us remember that less than a hundred years ago you could have taken a courses in "Natural Science" and expected to learn at least the basic laws of chemistry, physics, astronomy, zoology, botany, geology (and I know not what else). To contrast the situation with that obtaining today, just think of the various units set up within the department of physics alone in any leading modern university.

Specialization has brought about finer and finer distinctions in the types of products and services offered to man. This in turn has meant that modern man is forced constantly to make choices in terms of ever more tenuous differences. Perhaps the problem at one time was simply wheter to wash or not. Today the problem is wheter to use soap of brand a or brand B, with a host of similar problems covering the entire field of personal hygiene, cosmetics and, more and more, various types and brands of tinned or otherwise packaged food stuffs.

Admittedly, each choice situation confronting an adult i8n any of these fields is usually quite trivial in itself. Before however hastily dismissing this entire field as irrelevant, let us

note two things:

An increasingly effective advertising industry is bombarding all of us with invitations, not to say commands, to make a choice of an enormous variety of products or services; so that we are, in effect, under an unremitting bombardment of stimuli and confronted by alternatives calling for a choice on our part.

The second and perhaps more important aspect is this: the advertisers make claims of drastic consequences following from the right or wrong choice of a particular brand. All of us have read, perhaps with a smile, that one's choice of particular toothpaste can make the difference between marital happiness and unhappiness. Or again, that the right hair tonic may spell the difference between getting a job and not getting it, between social acceptance and popularity, on the one hand, and social disaster and ostracism, on the other.

Let us by all means treat such exaggerated claims with the contempt which they deserve. But let us also remember that advertisers usually are not theoreticians but hard-headed pragmatists: they have undoubtedly found that these claims do make an impression on the general public and help to sell the advertised products.

Even more important are the advertising claims which threaten dire medical consequence to those using rival products, while promising a veritable cornucopia of health to those who use the "right" product.

The meta-psychology of choosing, to use a Freudian term, always involves a sort of psychological conflict which can be resolved only by an expenditure of nervous energy and thus affects the economy of the psyche.

In this connection the classic experiments performed by Maier in the nineteen-thirties are particularly relevant and instructive. Maier forced the rats used in his experiment to make a choice between two targets, one decorated with a circle, the other with an ellipse. The correct choice was rewarded by food, the incorrect choice was punished by a mild electric shock. After the rats had well learned their responses, the experiment proper began by altering the shape of the ellipse in such a way that it approached more and more closely the shape of the circle. Inevitably, a moment came when the rats could no longer distinguish between the two symbols although they were still forced to make their choice. What happened then is precisely the point to which I would draw your attention: the rats became neurotic. Their behaviour exhibited typical features of tension, compulsion or withdrawal, refusal to take food, etc. Essentially the same results were obtained from experiments with a wide variety of other animals, including a celebrated neurotic pig used in psychological experiments at Cornell University.

I trust that on further elaboration on this point is required to support the view that specialization forces man into making more and more choice on ever narrowing grounds of difference and that this factor alone must contribute to modern man's sense of inner tension and uneasiness.

No mention has so far been made of another, most important consequence of specialization, a consequence which makes itself felt in a sphere which has peculiarly close links to man's psychology, namely the economic sphere with its bearing on man's livelihood and its intimate connection with the instinct of survival.

The acquisition of specialized knowledge and skills is time-consuming and expensive. Hence we find the greatest scramble for jobs at the unskilled level which is also the least rewarding in terms of pay. Expert knowledge of a specialized field (such as electronics)

makes it relatively easier to find a position and one that pays more, at that. But it takes more time to master the field, time spent in studying, time during which you have little or no income and during which you are largely dependent upon the generosity of others, with a consequential opportunity to store up more psychological tension and uneasiness.

As a general rule, the most highly paid positions are the ones requiring the greatest amount of specialized knowledge. Competition for such positions might not be so keen, indeed the demand might tend to outrun the supply. Thus an expert television designer can probably choose among several offers of high paying employment.

A new danger, however, enters the field: it is entirely possible that laboriously acquired skills can become obsolete overnight.

Take the case of someone who wanted to become a cinema star in 1925. he was ambitious, he studied expressive gestures for better character portrayal. He became a star, much in demand. Along came the talking films and the star of the silent film became a mere ham, a has-been, unless he was willing to unlearn what he had previously learned and to learn a new set of skills.

Perhaps we can project a present trend in medicine into the future. It is conceivable that some "miracle" drug may be developed and found to cure all infectious diseases of the human body. A doctor works very hard today to master a formidable subject called differential diagnosis. What will happen to him if it should ever come to this; suppose that a patient has a high fever due to some undiagnosed infection or inflammation. Today he will need a doctor whose training has been long and costly. Tomorrow all he may need are two pills, regardless of whether the fever was caused by pneumonia, appendicitis or a common cold.

Or take another case: although this is not generally realized, it was Freud's belief that all mental disturbances could ultimately be cured by chemotherapy, and would no longer require the expensive and extensive treatment by psychiatrist or psychoanalyst. What would happen to psychiatrists or psychoanalysts if neuroses or psychoses could be cured merely by some injections or pills?

We thus note that in the economic sphere, specialization usually entitles a person to a better position than his less knowledgeable neighbor, but that his position is not very secure, and was attained only at the expense of prolonged dependence upon others. And whether he knows it or not, his unconscious does know it.

Let me try to sum up the chief consequences of growing specialization. They are: increased dependence on other; the making of more and more choices on ever narrowing grounds' and uncertainties in the economic sphere.

III

It is time to look at another aspect of our yardstick, the asserted parallelism between town and country, on the one hand, and present and past, on the other,

In general, rural life moves at a slower pace than life in the city Split-second timing is a hallmark of city life.

Let us go back a bit. At the dawn of history the smallest psychologically meaningful unit of time may be presumed to have been something as relatively vague as "day break," "morning", "noon day," afternoon," "dusk," "evening" and "night." True, much more

specific time units-such as the transit of a given planet or star-came into usage, but were of concern only to the small group of professional sky-watchers, such as priests, astrologers, and, later, astronomers. In pre-chronometry days, a statement such as “3: 15 p.m.,” not to mention “3:15:19:43 p.m.” was absolutely meaningless. It is so no longer: we have become accustomed to timing in terms of hundredths of seconds (and even much smaller units) in the field of science, sports records and photography.

To the farmer without a radio, the older, broader sub-divisions of the day may still suffice, more or less. It makes little difference to him whether he gets to his field at 5:13 a.m. or at 5:17 a.m. To the sub-urban commuter, however, such a four-minute interval spells the difference between catching his train or missing it: four minutes have become psychologically important.

150 years ago your friend in Europe wrote you in February that he planned “to take ship some time in June” and might be expected to arrive, “if the winds should prove favorable, some time in July or August.” No need to worry about his safe arrival until the second half of August. 20 years ago, your friend cabled that he would sail from London on 15 July and expect to arrive in India on 30 July. The time of “no need to worry” has grown shorter: you will begin to feel uneasy within a matter of hours-say by midnight of 30 July.

Today your friend will cable, “arriving airport 6:15 p.m.” and you will begin to worry at 6:16 p.m.

Consider another aspect of the matter: 150 years ago, the news of an impending cabinet crisis in Australia hardly worried the average man in India or the United States: he knew that speculation would be useless, since the crisis would probably have been resolved one way or another by the time he first learned of it. Today, what with radio and television, it is hardly too much to say that we must react instantaneously to the new of a smile or a frown on the countenance of a participant at an important political conference anywhere on earth.

In other words, the acceleration in transport and communications is making ever smaller segments of time ever more important psychologically. Temporal pressure is increasing. Let us follow, loosely, an analogy from solid geometry: a temporal unit of one hour may, arbitrarily, be likened to a cube. By splitting such a cube in half-i.e. by making half-hours psychologically meaningful-we increase its surface by two sides. Man, it has been said, is a time-binder. Our reflections show us that he is also increasingly time-bound. In many countries, including my own, radio has made us fifteen-minute conscious.

What are the psychological effects of this increase in temporal pressure, in acceleration? Generally speaking, the process leads to our being confronted with a growing number of stimuli per unit of time, to which we must react more and more rapidly. The notion of simultaneity may be untenable in physics: psychologically, it is indispensable to an understanding of man in the modern world.

For all practical purposes, news becomes known simultaneously in the urban centers all over the world-from Geneva to New Delhi, from Rio de Janeiro to Moscow. Everywhere, it calls for immediate human reaction and adjustment. And reaction and adjustment necessitate choices, be it remembered from what has been said before, between usually narrower and narrower alternatives!

Not only must we make finer and finer-and therefore psychologically more difficult-choices, but we must make more and more of them at an accelerating pace.

The most significant repercussions of acceleration occur in the world political arena,

particularly in times of strain. The knowledge that atomic weapons might be unleashed at an moment heightens the strain. At any time a bulletin from anywhere on earth might proclaim the onset of Armageddon.

Man is adaptive. He will live in an environment in which it is physically possible to endure. He will adjust to the environment in two ways: by making in it such changes as he can; and by developing defensive mechanisms in him. If the number of stimuli confronting him is too great, the time allotted for making a choice too small, he will reach a point at which he will ignore many or most of the stimuli, refusing to make a choice. The price paid for this evasion is tension, uneasiness, nervousness, doubt, restlessness, even a sense of guilt. Depending on his inclination, he will become a cynic, living only from day to day, a recluse, brooding with or without the aid of alcohol, or an "average city-dweller," pretending to be more interested in the race on some athletic field than in the fate of the human race.

IV

Serious as are the psychological consequences of specialization and acceleration, they cannot possibly account, by themselves, for the position in which modern man finds himself today. After all, if you know where you want to go and what you want to do once you get there, the possibility of reaching your destination more speedily and by means especially adapted to your purpose that possibility, far from being a liability, is a distinct asset. It follows that if only modern man knew his destination, he could turn the liabilities of specialization and acceleration into assets.

But does he know his goal?

Our attempt to answer that fateful question will take us to the heart and let me add by all odds the most important source of modern man's uncertainty.

V

Let us watch a captain steering his ship. He receives his own instructions by radio, charts a course on maps, uses various instruments to determine his position and progress and does not doubt his ability to reach his destination at approximately the calculated time. His behaviour is energetic, purposive.

What would happen to the good captain's poise if he were informed— *authoritatively* warned—that the radio is an unreliable instrument for the transmission of Instructions, that his maps are demonstrably false, his instruments untrustworthy? Gone would be his self-confidence and his certainty of reaching his deputation would yield to anxious doubts.

The hypothetical disaster which has overtaken our good captain has become reality for modern man. For what were long ago—and only yesterday!—the idle speculations of philosophers or wise men (idle in the sense that the average man could afford to ignore them, if indeed he did not merely make fun of them), these strange speculations have suddenly in our day forced themselves upon the attention of that same average man, particularly in the cities.

For today we have *proof—physical Proof*—that our senses are unreliable and that whatever "Reality" may be like, it cannot—let me repeat—it *cannot* be as it appears to our senses.

Your sense of touch tells you that a piece of wood has substance, solidity, and that it is at rest. False! says physics/ Your "solid" piece of wood is mostly, if not entirely, empty space and if it does contain anything substantial, that "substance" is constantly moving at

tremendous velocities. While evidence for the velocity may be more indirect, the assertion about matter being essentially empty space is very easy to prove: any X-ray picture will readily demonstrate it.

Colons? Merely a psycho-physiological effect on your consciousness of certain vibration! and energy levels. Sound? The same thing.

Once again: these are no longer matters of speculations or the result of deep meditations by a few odd individuals. These are today theories the evidence for which seems inescapable.

Let us pay a visit to an imaginary modern theoretical physicist and request him to describe reality as it appears to his science. His first attempt at an answer will probably consist of him rapidly filling sheet after sheet of paper with mathematical hieroglyphics, the symbols of tensor and matrix calculus and partial differential equations. Let us invite him to do without his mathematics and to us instead a word-picture. The request itself will most probably somewhat embarrass him. However, he may start off bravely enough and eventually you will hear about atoms, nuclei, electrons, protons. You listen carefully. Strange: sometimes the physicist talks as if electrons were waves, while at other times he sounds as if he thought they were particles. Remembering your Aristotelian logic, you say they cannot very well be both, trying to pin him down. New Surprise: now he all but speaks of "wavicles," telling you that experiments have conclusively shown that electrons *were* waves. Splendid! Except that other, experiments have shown *just as conclusively*, that they must be particles. Better call them wavicles, as Eddington half-jokingly suggested!

As the physicist continues, you may be puzzled by something else! he does not appear to believe in causality, in the proposition, so obvious to all common sense, of a strictly determined one-to-one relation which can be called cause and effect. Question him on this important point, and you will be told that strict causality, strict determinism had to be discarded when physics tried to account for intra-atomic phenomena. The time-honoured "laws" of the familiar everyday world are, you will be told, purely statistical. They are reliable only because the events on which these laws are based involve billions upon billions of atoms and sub-atomic particles.

Perhaps you always "knew" that when you put a pot of water on the fire, the water would boil sooner or later. But as some one once remarked, it isn't the things few don't know that are so bad: it's the things we do know that are not so!!

If you *ask* the physicist to commit; on your proposition about the boiling of the water, he would have to tell you something like this: "It is entirely probable—in fact, practically certain—that water will boil if put on a sufficiently hot stove. Entirely probable, yes. Practically certain, yes. But not absolutely certain. There is a *theoretical* possibility that water might-not boil—but actually freeze in such circumstances. The odds against that happening are fantastically large; but they are not infinite. It is all a matter—not of invariable cause and effect and fixed law—but of stochastic, of laws of probability and statistics."

Less than a century ago, a Lord Kelvin could still count on applause when he proclaimed that he would not accept any physical theory of which he could not imagine a mechanical model. Lord Kelvin was a great scientist. No doubt he would have changed his outlook. If not, he would be obliged to reject just about even modern physical theory. For they all have one thing in common: they cannot be represented by mechanical models, only by mathematical equations. Lord Kelvin would not recognize the theoretical structure of his science, and neither would Newton or Galilei, although all three of them would no doubt be able to master the new theories.

From one point of view, it is symptomatic of our times that not one out of a thousand persons who may describe Einstein as the greatest scientific genius of this century could state, even in mere outline, just what it was that Einstein contributed to modern scientific theory to justify his being called a genius. It is to be doubted that there was ever so wide a distance, so great a gap, between the average, *educated* man and the frontiers of modern science.

Science, then, is more than apt to give the average modern man a feeling of inferiority fit an individual, a feeling made *more rather than less acute* by the fact that science today occupies a position of unprecedented prestige. As members of the species "man" we all claim and share part of the glory of Science. The fact that most of us understand very little of Science tends to instil feelings of guilt and to heighten feelings of inferiority. With newspaper headlines and radio announcements trumpeting new scientific achievements—sputniks, moonshots, space probes—the world of science intrudes on our awareness to an ever-growing extent.

This itself is merely an *accelerating*, not a *new*, process.

Let us look at the effects of the march of science on man through history, in broad outline.

Medieval man lived at the fixed centre of the universe; he was secure in the knowledge that he had been especially created by God. He thought of himself as *Homo sapiens*, a rational creature. Bit by bit, science made it more difficult to maintain those views.

Galilei freed the earth, from immobility and sent it spinning in space, an average satellite of an average sun, lost in inter-stellar distances. There can be little doubt that this new doctrine (new in the sense that it was based on scientific methodology as distinct from philosophic speculation) struck a blow at man's ego, a blow which the Catholic Church vainly opposed for a long time. The *Science* of the Church may have been wrong: its psychological instinct *as such* was {found enough.

Man nursed the wound to his pride and comforted himself with the thought that, after all, the size and motion of his planet were not really important: it was still true that God had created man in His image, as a rational creature and crow of creation.

Charles Darwin and a new blow: if man and ape—or any other form of life, for that matter—were to collect a *complete* gallery of their respective forebears, they must discover common ancestors. Once again, the Church vainly fought to ward off the blow to man's ego. Once again, its psychological instinct was sound, whatever one might think of its science.

And Man sought consolation in a new reflection; after all, it is vulgar to presume on one's heritage. What matters is not who or what your ancestors may have been. What counts is who *you* are. And while we may have sprung from brutes, we are ourselves rational beings who act according to reason rather than blind instincts and emotions.

Several centuries separated Galilei and Darwin. But Science progresses at an accelerating pace, almost exponentially. Only a few decades separate Darwin from Sigmund Freud.

Here we are not concerned with the minutiae of psychoanalysis, the rivalries between differing schools of psychology. It is enough for our purpose to note that virtually all psychologists—and significantly, the average city-dweller (or at any rate many of them)—do accept that our actions often originate our unconscious. This theory, formulated by Freud shortly before the turn of the century, has since been tested and—to say no more—made most plausible layman experiments. The layman may not have heard of the classical

experiments of Jung or Kenneth Diven or Rosenzweig: he has assuredly heard of lie-detectors and cases of amnesia.

Experiments convey more than a hint that Man is normally not so much a *rational* as rather a *rationalizing* creature, unaware of the hidden mainsprings of his own actions.

Our conscious selves are only a small and, dynamically, relatively weak part of our total selves much of which consist of unconscious regions, teeming with primitive[^] irrational wishes and desires.

This was perhaps the cruelest of all the blows, not rendered appreciably softer by the opposition of the Church.

The Church has been mentioned deliberately, to illustrate its opposition to giving science its head, and also to show the gradual decline of its strength in its repeated tests of strength with science. Galilei could still be forced to recant temporarily; Freud can only be denounced from a pulpit.

It is not argued that the Church—any Church—should be permitted to interfere with scientific progress. But it should be admitted that the motivation of the Church was quite sound, psychologically. For man, especially created by God in His image, living as a rational being at the center of a specially created universe, is much less apt to become a prey to doubts and nervousness. He can seek and gain strength, through faith in God, to bear his earthly existence.

The argument is however somewhat beside the point, for organized religion, however powerful, is not *as* powerful today as it once was: nearly a thousand years ago (and even more recently if we think of the Thirty Years War in the 17th century), great wars could be and were fought in the name of Religion, for ostensibly religion objectives. Such a thing is unthinkable today, when religion may indeed rally to the support of political ideologies, but the great conflicts themselves are fought under the banners of political ideals. I do not know of any major party⁵ to such a present or recent ideological conflict which fights or fought for any *particular* religion. At most they include, among many other ideals, that of the freedom of the individual to choose his own religion, if he wants to choose his. I think there can be no doubt, whatever that the secular power of all organized religions has declined through recent centuries.

To my mind, -what has just been stated about Religion was not a digression, but an important part of our inquiry. For the decline of the strength of Religion in the secular field—largely due, I think, to the concurrent growth of Science—has tended to bring into a state of flux what were for a long time regarded and accepted as firmly settled issues, particularly in the fundamentally important sphere of morals, ethics and values, a sphere with which Science itself is *constitutionally incapable of dealing at all*.

I believe that this last statement requires some emphasis, both because of its very great importance and because it has been so often overlooked. The scientists themselves know that science consists essentially of careful observation, typically through that controlled manipulation of the environment which is known as an experiment, and the application of systematic thought to account for such experimental observations; followed by the formulation of hypotheses which are then & be tested in new experiments. The scientific process *as such* cannot cope with values *as such*. Yet such is the prestige of—I might almost say: the faith ink-science, that the average layman is totally unaware of this Serious limitation. And that psychological phenomenon sometimes called the "halo effect" leads the

same average layman to look to Science for. Some guidance in morals, or ethics,—guidance which scientists may indeed be able to give as HUMAN BEINGS, but not as scientists *qua* scientists; and which Science itself *cannot* give.

Let us stand back a bit to view the matter in better perspective; Science has progressively dissolved more and more of that ‘ reality ’ with which man once was, or thought he was, quite familiar. We had to learn that, *not only in theory but in Practice, too*, things are not what they seem ; that our sense organs do not meet that naive trust which we once had in them; that, to put it mildly, unconscious irrational impulses vie with our conscious, rational thoughts as initiators of our actions; that "immutable physical laws" are mere statistical probabilities to which we turn in vain for absolute certitude.

Science has thus been responsible for what I propose to call the *dissolution of familiar reality*, our third major source of modern man's psychological uncertainty. In the process, moral values which depended to a significant extent upon the fabric of the old familiar reality, were dangerously threatened and shaken. And while the familiar edifice lies in ruins, we cannot clearly discern the shape of the new structure which has taken its place -little by little. And the blue-prints emerging from the laboratories are more or less incomprehensible to most of us.

Let me note, in passing, that this process too, just like specialization and acceleration, has of course made more headway in the city than in the country-side.

I must ask your indulgence for a brief digression which *is* tempting me beyond my poor powers of resistance. If the views just expressed have any merit, they will be found, I believe, to serve quite readily as a most, important key to the enigmatic field of modern art. Nothing characterizes modern art quite so generally, I venture to submit, as that same dissolution of familiar reality. Whatever you see in modern painting and sculpture, hear in modern music or, to a lesser but still significant extent, read in such modern works of literature [s, say "Finnegan's Wake": it is not the kind of reality with which any one was familiar before the advent of atomic physics and psychoanalysis. The familiar forms have disappeared and what has taken their place is perhaps a groping [o express what, to date, must be called the elusive nature of the now physical and psychological reality.

VI

Specialization, acceleration, dissolution of familiar reality: it is in these that I seek the causes of normal modern man's psychological uncertainty.

Can we carry our search a step farther?

I think we can. There is a common denominator which is largely, perhaps entirely, responsible for all three. That common factor is Science. The constantly growing boggy of scientifically gained knowledge inexorably entails specialization on all levels. Modern inventions, again based on Science, lead to acceleration. Science is forever changing our concept of physical reality, that is to say, is responsible for the dissolution of familiar reality and the relative decline of the power and prestige of Religion.

Does it then follow that Science is the culprit, the enemy of modern man ?

If you have ever read a good detective story, you must know that the criminal may be almost any one but the person to whom all the evidence seems to point so obviously. He, poor fellow, is probably being framed.

I think that's true in our case also. Science is not the culprit. The solution of our riddle is

more subtle, for the real miscreant, at least in my opinion, is the *impact of science on modern man and his society*.

This, I shall strongly argue, is far from a mere quibble over words.

Let me try to justify my view by an analogy. Suppose you hire a large symphony orchestra to play, say, Beethoven's " Fifth Symphony " at your own home. The performance will jar on your ears, not because of Beethoven, the orchestra or the instruments: the composition was never intended to be performed by such large orchestra in such a small place, with such poor acoustics. Beethoven is excellent, and so is the orchestra; you must merely choose a different site for the performance.

Beethoven and the orchestra represent Science and scientists in this analogy. The inadequate room represents our inadequate present social structure.

VIII

Since I was primarily concerned, in this paper, with an inquiry into the causes of what I believe to be the wide-spread phenomenon of modern man's psychological insecurity, I shall do no more than briefly sketch the directions in which Society might usefully move to improve matters. I apologize in advance if the suggested remedies seem less impressive, more platitudinous, to you than did the analysis of the illness. But I think I am entitled to a finding of mitigating circumstances. After all, the problem is immense; its solution neither easy nor obvious.

But let us be done with alibis.

The first requirement is *better education*. Let our future citizen receive better instruction not only in the sciences, but also in the humanities. Here is a field where Educationists, psychologists, sociologists and others can and should usefully; join hands. Above all, let us see to it that our children are encouraged to think for them, to develop their own set of values and to appreciate the importance of ethics without which any Society is merely a deadly jangle.

Next, let us recognize our constantly growing inter-dependence and prepare ourselves for it psychologically. In a world of nuclear weapons we must, I deeply believe, substitute more and more co-operation for competition. Please do not misunderstand: I am not advocating the elimination of competition altogether. In many fields, it is useful. But a new look at this old problem is urgently indicated; For one thing should be clear to every thinking person in the world today *that particular form of competition known as "war" has become utterly untenable if mankind is to survive as a species*. Indeed, the psychological burden under which modern man groans today would be {substantially lightened if the possibility of war were banished, as it ought to have been banished long ago.

Third, I believe that modern society should so organize itself as to place a definite floor under basic human wants without, however, patting a ceiling on lawful individual initiative. It should be the goal of society—even if that goal cannot be realized today or tomorrow—that no person should ever, through no fault of his or her own, be forced to go without a job, to stay hungry, ill-dressed, ill-housed, ill-educated, or be obliged to do without proper medical care.

Science, which has already accomplished so much, can be counted on to help accomplish this too. Then *let Society make up its mind that it wants Science for the better life of all its members!*

I believe that, in a society which translates these ideals into practice, the trend toward

psychological insecurity and malaise will be arrested. No, even such a society would not be a frictionless Utopia: there will still be the struggle—the good struggle!—of each of us with the great problems. There will still be our duty to try to find answers to the Great Questions. But it would be a society in which human dignity could flourish.

Let me also say this: if the present trend is permitted to continue, I believe that modern man will become more and more neurotic, in the psychological, as distinct from the journalistic, sense of that word. Suicide rates will continue to rise. And the psychopathology of the individuals will become the psychopathology of the masses—and—invariably—of their leaders, their governments. There can be only one outcome of such a development: the holocaust of war and, quite possibly, the extinction of our species.

I mention this gloomy possibility not in any effort to frighten anyone, but rather to show the importance which I attach to the topic which I have chosen for discussion on this occasion.

Constitutionally, I am an optimist. I believe that Man will yet find the wisdom to turn Science—one of his proudest possessions, painfully and painstakingly acquired through the millennia—to turn Science into an instrument for his advancement toward a richer, more rewarding life, to be lived in greater human dignity and in lasting peace.

In conclusion, I cannot hide from you the *fact* that I have seldom been so acutely and oppressively aware of the inadequacy of a paper written by me as I am in the present instance, I have not even begun to do justice to the *impedance of the subject*, although this paper has been quite lengthy. Please do not let my own limitations blind you to the magnitude of the problem. The issues themselves, as distinct from my faltering attempts to deal with them, are worthy of your best attention. For these issues relate to nothing less than man's future health of mind and spirit, in brief, to man's fate. That is why all of us should participate in the search for worthwhile solutions, solutions consonant with human dignity and decency.
