THESIS AND CRITICISM

THE word "thesis" is a weak approximation of the meaning we should like it to bear in this title. "Thesis," here, is supposed to mean a general conception of the nature of things. For example, there is what may be called the *Platonic* thesis, and, contrasted to it, the *Christian* thesis. Various combinations of these two views of nature, man, and life shaped the thought and culture of Western civilization until the Renaissance, when the related theses of *Science* and *Humanism* got under way as major influences.

Some of these theses are partial, some total. Platonism and Christianity are total theses—that is, they include a cosmology which is intended to supply a broad explanation of the world and to answer the final questions which arise in human life. Partial theses may be either agnostic or political, and are either left that way or are blended with some other view or views. For example, Humanism may be an adjunct to either Platonism, Christianity, or a scientific outlook, and Marxism is commonly united with what is supposed to be a scientific view.

Science itself, of course, is not exactly a "thesis," but is rather a theory of knowledge which may go in any one of several directions. It may be adapted to the thesis of Materialism, or it may represent the temper of scientific Humanism. But the scientific spirit is not necessarily alien to Platonism, as is shown, perhaps, by the philosophy of Alfred North Whitehead. Taken as a "movement," science by itself might be said to result in the total thesis of Emergent Evolution, or in the partial thesis of modern Positivism.

Two other general views deserve notice as partial theses. There is the liberal democratic philosophy represented by the revolutions of the eighteenth century, and the more recent political phenomenon of Fascism. Political democracy is a thesis which modifies or supplements earlier theses, while Fascism is a species of pseudoheroic egotism which feeds on the break-down of existing social systems and exploits partisan interpretations of the intuitions which have suffered neglect in equalitarian, acquisitive societies.

These seven theses—the choice of *seven* theses is obviously arbitrary; there could be fewer, or more, depending upon the degree of analysis intended—form the positive heritage of Western civilization. To them might be added various Oriental attitudes which increasingly affect Western culture, but no Eastern idea has as yet become a really major influence in the West.

What are these theses about? Platonism, broadly considered, proposes that an ideal world is in the process of gaining embodiment in the physical or "natural world." Platonism is objective The human struggle is to embody idealism. perfection on earth. This is not possible, but it must be attempted. The effort is cyclic, undertaken through successive reincarnations, as represented in the Myth of Er in the tenth book of the Republic. The obstacle to achievement or wisdom is in the recalcitrance of matter, of which our bodies or "vehicles" are formed. Man's lesser nature-typified in the Phaedrus myth by the unruly steed of the two which draw the chariot of human existence-must be disciplined to respond to higher intentions. Final liberation comes from "participating" in the vision and unity of the One, which is the highest good. Above the world of earth and organisms, of striving and error, stands the archetypal world of ideas and causes. The man who learns to live in the archetypal world becomes a god.

Christianity, despite its having been blended with Platonism by many pious hands, is a very different thesis from Platonism. In Christianity, the mind of God replaces the archetypal world. For the cycle of purifications of the Orphic Mysteries and Pythagorean teachings, which Plato adopted, Christianity substituted the vicarious atonement of a single Savior, the "Son" of God. Christians might participate in this sacrifice and obtain its benefits by believing in the Son and his role of savior. Without such belief, salvation is not possible. In effect, Christianity argues that human beings are unable to save themselves. Their only hope is a life *borrowed* from the Son of God. They exist upon the sufferance of God and must never cease from ineffable gratitude to Him. To fail in this relation to God is not simply to lose life-to become extinct-but is to court eternal damnation.

This is essential theology, covering the *causal* relations between God and man in Christianity. Many Christians have taken leave of this stark doctrine, but in doing so they have ceased to be Christians and become something else which is difficult to define, except, perhaps, as a sentimental humanism which employs a Christian-like vocabulary.

The scientific revolution brought an entirely different view of nature and man. Science rejected Christian doctrines on two counts. The first count is that of process. In Christianity, every process of nature is no more than a reflection and execution of the will of God. In science, every process results from and illustrates a 1aw of nature. God's will cannot be found out, but the laws of nature can. Of course, it can be and is argued that God's will expresses itself as the laws of nature—that the physical world is a "natural revelation" of the work of Deity which complements the scriptural revelation of the Bible.

This identification of natural and supernatural revelation would have probably worked out rather well except for the second count held by the scientifically-minded against Christianity, which is *ethical*. The anti-religious revolution against Christianity, which began to be a power in the eighteenth century in the works of Baron d'Holbach and De La Mettrie, was fundamentally an ethical movement. It represented a revulsion from the historical consequences of Christian belief, in wars, priestcraft, and oppression. It would be satisfied with no devious retreat of faith to a "natural religion" which left Jehovah still the arbitrator of human destiny. The great atheists were determined to disarm the theological manipulators of men, and they saw no other way to do this than by eliminating God altogether. A vast, filtering cloud of skepticism and unbelief settled on the Western world as a result of their efforts, issuing, at the scientific level, in Positivism, at the political level in Communism, and in general moral sluggishness on the one hand, and in naturalistic ethical doctrines on the other, depending upon the people who felt its influence.

Each of these several theses takes its leading contention from some fact of human experience. Platonism declares the capacity of man to realize, if imperfectly, his ideal dreams on earth. Christianity reverses the claim, arguing from the fact of human weakness that the capacity is not man's, but God's. The pantheists may make a synthesis of Platonism and Christianity, but pantheism is a heresy for all orthodox Christians, who insist that God and man are separate and distinct identities.

Scientific philosophy discovers all potency in the physical world and proposes that command of that potency will come from understanding and learning to control the laws of the physical world. The restriction of reality to the "physical" was not an especially "scientific" decision, but arose from an accident of history—only by denying the intrusions of the mysterious and miraculous interferences of God in natural events could the scientists do their work at all. The problem of accounting for the originality and creativity of human beings was not even dealt with in scientific terms until all supernaturalism had been expurgated from scientific literature. With this accomplished, the purity of Naturalism was assured by the doctrine of Emergent Evolution, which held that the wonder of intelligence—most particularly *human* intelligence—resulted from a series of fortunate but wholly unplanned accidents in the cosmic concourse of atoms and more complex forms of nature. Intelligence simply *emerged*. Philosophers were permitted to propose an obscure, impersonal teleological force at work in this development, but no personal designing intelligence that might open the door to the return of Jehovah to the scene.

The political theories which inspired the revolutions of the eighteenth century formed a partial thesis concerning the nature of man, but had little to say about Nature, except by implication. Like the anti-religious thesis which accompanied it, the democratic thesis had an ethical origin. It declared for justice, and justice was to be obtained by declaring for human equality. Unlike Christianity, liberal politics has no theory of human origins or "creation." It owes allegiance to no God, but only to the rights of Liberal politics has a background of man. Naturalism and Humanism in philosophy, but since politics is concerned with legal relationships and constitutions, and since freedom in philosophy and religion is a rule of liberal politics, the democratic thesis had to ignore its own origin in Platonic, Stoic, and Humanistic thinking. Liberal political theory is thus by definition a limited or partial thesis. It is taken as a total thesis only by those who are able to believe that larger philosophical questions are either unanswerable or unimportant.

The Marxist thesis seems to have been a response to two human needs: first, the ethical longing for economic justice, and second, the sense of wanting a *complete* credo, which democratic politics is unable to provide. The Marxist wants to be a total man with an answer to every question. Becoming impatient with the agnostic position of liberal politics, and fascinated by the intellectual symmetry of Hegelian metaphysics, he hopes he has found a total thesis

without having to return to the supernaturalism of religious dogma; but instead of becoming a total man, he becomes only totalitarian.

Humanism is perhaps the best philosophical equivalent of liberal politics. Humanism permits a mild Platonic or Confucian ardor, but refuses to wander in the scientifically trackless areas of metaphysics. Hungry, however, for doctrine-or for the "certainty" which doctrine was once thought to provide-the humanist tends to ally himself with some other thesis which will not interfere with his essential principle of human freedom and self-determination. There have therefore been many sorts of Humanists, but today the Humanist position is most closely identified with Scientific Naturalism, since science seems able to supply the most reliable body of "facts" that can be used to amplify the Humanist outlook and keep Humanism from being no more than a somewhat literary tradition of scholarly benevolence.

Humanism is perhaps above all a hearkening to the immediate ethical perceptions of human beings and represents an unwillingness to sacrifice the values they represent in behalf of some "system" of belief or political theory of salvation.

To say a "good word" for fascism is an unpleasant task, yet it must be admitted that the fascist movements of our time have made capital of the differences among men, instead of their similarities, and it might be argued that if the liberal political thesis had included a more intelligible account of human differences, and had been more successful in dealing with them, fascism would have made less headway in the modern world.

We have now reached what might be called the point of dilemma in this sketchy review of Western history (in terms of its "theses"). For liberal politics could not explain the differences among men without more knowledge than the modern world possesses, and a politics which tries to explain what it does not understand is fully as bad as a religion which tries to explain what it

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does not understand. Western politics, in particular American politics, in devotion to its great ethical principle of equality, tried to function as though equality were also a psychological and social fact. This led to all sorts of fictions and pretenses, such as the supposition that the Party System is somehow a legitimate expression of equality-when the Party is really a practical political adjustment to human differences. Actually, every great political movement since the eighteenth century has represented an effort to relate the fact of human differences to orderly social processes. Communism was an attempt to erase them, arguing that they arose wholly from the influence of environment, and that by changing the environment to a uniform influence, men could be made the same-with justice as the result. Fascism was an attempt to elevate and enthrone differences through its doctrines of an *élite*, and ideas of a "master-race" or master nation.

Just possibly, except for the limited contentions of Humanism, we are now entering a period of history which is *without a thesis*. Relics and fractions of the theses of the past lie all about, but the driving leadership of the best men among us is not found among the champions of any of these world-views of the past and present. The best men among us, we dare to think, are men without any thesis at all-men who are instead thinking about what life in behalf of a thesis has done for us in the past, and what it has failed to Paul Wienpahl's "Unorthodox Lecture" do. published June 13 may be an articulation of the spirit of a new age, presented at the level of philosophy.

This brings us to the second half of our subject—Criticism. Until very recently, practically all criticism has been criticism of one thesis in behalf of another. Criticism has been offered in order to "prove" something. It has had an *end*. But this kind of criticism is sure to be partisan. It picks its examples and glorifies its ends. For the culture without a thesis, for the man without a position, such criticism is no longer bewildering; it is only uninteresting.

But how can there be criticism without an end? How can you criticise without a standard of the good by which to judge?

The critic, obviously, one will say, has either an open or a concealed ideal. He is not *really* impartial, he only pretends to be; otherwise, why would he bother to write, to criticise?

But criticism may be of three sorts. First, a man may criticise because he wishes to win through to some "practical" objective. He may want to win an election, to popularize a book, or to convert a populace and thus to create a force that can be used to some purpose which the critic has embraced for good or bad reasons.

Second, the critic may wish only to persuade. He may want his readers to agree with him because, as he sees it, agreeing with him will constitute knowing "the truth."

Third, he may criticise simply in order to know.

The first sort of criticism is not worth any attention, since it is obviously propaganda.

The second sort of criticism is honestly polemical. The critic has a thesis in which he believes, and for which he seeks other believers. Most good criticism is of this sort.

The third sort of criticism, however, unlike the other two, is an end in itself. It is the voice of the positionless men, of the thesisless culture. You cannot write this sort of criticism until you have exhausted all tendencies in yourself of writing the other two kinds.

The trouble with this sort of criticism is that, while it is capable of authentic wisdom, it hovers over the pit of chaos. Only a gossamer thread of consciousness separates it from an aimless oblivion.

Many centuries ago, Lao Tze wrote:

The skilful philosophers of the olden time were subtle, spiritual, profound, and penetrating. They were so deep as to be incomprehensible. Because they are hard to comprehend, I will endeavour to describe them.

Shrinking they were, like one fording a stream in winter. Cautious they were, like one who fears an attack from any quarter. Circumspect were they, like a stranger guest; self-effacing, like ice about to melt; simple, like unpolished wood; vacant, like a valley; opaque, like muddy water....

He who tries to govern a kingdom by his sagacity is of that kingdom the despoiler; but he who does not govern by sagacity is the kingdom's blessing. He who understands these two sayings may be regarded as a pattern and a model. To keep this principle constantly before one's eyes is called Profound Virtue. Profound Virtue is unfathomable, far-reaching, paradoxical at first, but afterwards exhibiting thorough conformity with Nature.

There is a close similarity between Paul Wienpahl's "positionless man" and Lao Tze's sage. Neither seeks to prove anything. Neither wants converts. Neither has what could be called a "thesis."

One advantage of living in an age without a thesis is that there is opportunity for criticism without fear of violating some important "article of faith." A man can dare to think without restriction and his expression suffers from no inner prudence or constraint. There may be outward constraints, the "controls" of all the dying imposed through institutions of the age, convention, law, and nationalist or other political emotions. But the man who writes freely and fearlessly has no psychological vested interests of his own in such an age. He has no thesis; he just wants to know.

The disadvantages are obvious. First off, the thesisless age is an age which is falling apart. It has none of the vigors of a growing organism. It suffers a tired timidity and subsists upon the echoes of ancient faiths. And if the thinker is fearless, so also are the demagogue and the rogue. In such a period, the word obscenity loses its meaning, since the thesis of morality or worn-out moral systems fails with all the others. Whirl is king.

Then there is the possibility—even the organic necessity, so far as racial survival is concerned—that a new thesis is in the making. For life cannot go on without a purpose, even if, for philosophers, life is its own purpose and needs no other. So another thesis is always on the way.

But there is this: That the thesis which follows the critical exhaustion of any age always contains at least a momentary embodiment of the wisdom of the positionless man. It is a thesis which represents the way in which the positionless man uses his life, upon seeing that life is an end in itself—in that hour of human history. Thus, at its beginning, the new thesis has both immanent and transcendent truth, and for this reason it captures the hearts and minds of men and gives its mold to the pattern of their lives.

REVIEW ARTISTIC GREATNESS

APROPOS of last week's editorial concerning the relationship of art and philosophy, we pass on a contributor's enthusiasm for J. W. N. Sullivan's Beethoven—A Study of Greatness, as a book which offers profound philosophy and is itself a work of art. Written by a mathematician who may be remembered chiefly for his inspiring account of a musician's odyssey of soul, this book is deservedly regarded as a classic (now available in a Mentor thirty-five-cent edition). Though primarily concerned with that mystical process known as "spiritual development," Sullivan wrote no more as a religionist than as a musical technician, and while speaking an affirmative philosophical language, he was evidently not concerned with advocating a personal doctrine.

As seen through Sullivan's eyes, Beethoven was a great artist because he was a great and always growing man. Beethoven—A Study of Greatness is an affirmative work because, in tracing the relationship between one man's philosophy and his art we are assisted in understanding both the qualities of and the means toward "greatness." The last page of *Beethoven* indicates the psychological setting of the book, and explains why an artist's tangible accomplishments can, in the final analysis, have significance only as they relate to growth in his breadth of understanding, to his increasing sympathies. Sullivan concludes:

In this sketch of Beethoven's spiritual development we have regarded him chiefly as an explorer. What we may call his emotional nature was sensitive, discriminating, and profound, and his circumstances brought him an intimate acquaintance with the chief characteristics of life. His realization of the character of life was not hindered by insensitiveness, as was Wagner's, nor by religion, as was Bach's. There was nothing in this man, either natural or acquired, to blunt his perceptions. And he was not merely sensitive; he was not merely a reflecting mirror. His experiences took root and grew. An inner life of quite extraordinary intensity

was in process of development till the very end. Comparatively few men, even amongst artists, manifest a true spiritual growth. Their attitude towards life is relatively fixed, it may be exemplified with more richness and subtlety as they mature, but it does not develop. Such a transition, as we find from Beethoven's "second" to his "third" period, where nothing is abandoned and yet where everything is changed, is extremely rare. Beethoven, therefore, although he preached no philosophy, is of philosophical importance because he adds one to the very few cases that exist of a genuine spiritual development. Such cases, it might be said, do nothing to help the development of mankind. Beethoven's music illustrates the development, but throws no light on the process by which it came about. But such revelations have a strangely haunting quality. And our conviction that these experiences are valuable, even to us, is reinforced by the whole bulk of Beethoven's work. If they stood alone these super-human utterances might seem to us those of an oracle who was hardly a man. But we know, from the rest of his music, that Beethoven was a man who experienced all that we can experience, who suffered all that we can suffer. If, in the end, he seems to reach a state "above the battle" we also know that no man ever knew more bitterly what the battle is.

Sullivan saw in Beethoven not only a man head and shoulders above his fellows in sensitivity and ability, but-and this, we are affirming, is far more important-a man who became, in his own way, what every other may become. He writes that "Beethoven's imagination and emotional nature, although so intense, is, on the whole, of a normal kind. Most of the very great artists may be regarded as huge extensions of the normal man, which is the chief reason why they are so valuable. Beethoven, in his last years, was speaking of experiences which are not normal, but which are nevertheless in the line of human development. But this strange slow movement, as more than one writer has remarked, makes on us the impression of something strictly abnormal. It is as if some racial memory had stirred in him, referring to some forgotten and alien despair. There is here a remote and frozen anguish, wailing over some implacable destiny. This is hardly human suffering; it is more like a memory from some ancient and starless night of the soul."

Beethoven first saw his talent as a means to personal power and fame. He worshipped strength because he was strong; he wished to reach a pinnacle of recognition and adulation. But his morality of power, as Sullivan terms it, was simply one stage, an immature stage of development. Later he came to know as much about submission as he did dominance, yet carried the strong will of the domineering man into his acceptance of serious physical disabilities. As Sullivan describes it. Beethoven was finally convinced that his afflictions were in some mysterious way necessary, as a means of providing the resistance out of which great visions spring.

In his last chapter, Sullivan describes the "final stage" of Beethoven's life, finding essential truth in the Tolstoyan claim that art must have moral beauty. In great art, Sullivan says, "we make contact for a moment with the prophetic soul of the wide world dreaming on things to come."

He continues:

There seems to be no reason to doubt that the great bulk of Beethoven's work is of permanent value. The greatest function of a work of art is to present us with a higher organization of experience. It is on this that its claim to "greatness" depends. It does not seem that the "greatness" and the "beauty" of a work of art are identical. What constitutes the beauty of a work of art is a hitherto unresolved problem with which, in this book, we are not concerned. That Beethoven's music is more beautiful than any other music we are not inclined to assert; that it is greater than any other music has been, on the whole, the general opinion ever since it appeared. Its greatness depends on what we have called its spiritual content, and this is something that the listener perceives directly, although he may be entirely unable to formulate it. Beethoven's work will live because of the permanent value, to the human race, of the experiences it communicates.

These experiences are valuable because they are in the line of human development; they are experiences to which the race, in its evolutionary march, aspires. At a given period certain experiences may be current, and may be given popular artistic expression, which are not valuable. In our own day, for example, a certain nervous excitability and spiritual weariness, due to specific and essentially temporary causes has informed a good deal of contemporary art. Small artists can flourish in an age which is not fit for heroes to live in. But such manifestations are of quite local importance. The great artist achieves a relative immortality because the experiences he deals with are as fundamental for humanity as are hunger, sex, and the succession of day and night. It does not follow that the experiences he communicates are elementary. They may belong to an order of consciousness that very few men have attained, but, in that case, they must be in the line of human development; we must feel them as prophetic. Beethoven's later music communicates experiences that very few people can normally possess. But we value these experiences because we feel they are not freakish. They correspond to a spiritual synthesis which the race has not achieved but which, we may suppose, it is on the way to achieving. It is only the very greatest kind of artist who presents us with experiences that we recognize both as fundamental and as in advance of anything we have hitherto With such art we make contact, for a known. moment. with

The prophetic soul of the wide world Dreaming on things to come.

It is to this kind of art that Beethoven's greatest music belongs and it is, perhaps, the greatest in that kind.

СОММЕНТАRУ Манавнавата

PLAYERS of sports—tennis-players in particular—have an expression which is suggestive for both art and philosophy. When a man plays well, it is common to say that he is "at the top of his game," but when he plays still better, they say that he is playing "over his head."

Truly great men play the game of life "over their heads." This, we suspect, is the element of magic and mystery in human greatness. The incommensurable is always present in the work of a great man. It defies both measure and explanation.

This is the basis of the old war between the Platonists and the Aristotelians. The Platonists, if they are truly Platonists, honor above all the incommensurable in life, while the Aristotelians want everything done to scale.

The Aristotelians reproach the Platonists by saying, "You are dreamers who ignore the hard facts we have so carefully compiled. *Our* theories are open to all, and they can be *verified*." They condemn the Platonists as enthusiasts, yet are always a little envious of them, just as a prudent, thrifty man will envy the uncalculating person who enjoys the freedom of giving away his last dollar.

The Platonists are a never-ending source of annoyance to the Aristotelians. The Aristotelians practice the virtues. They lay up the treasures of facts and formulas. They know how to deal with the world and they are usually admired and respected. But it is the voice of the Platonist which is heard around the world.

The Aristotelians not only understand the language of Security—they composed its grammar. They know and elaborate on the rules. You can imagine how they feel when someone comes along and says, "The best things are done only when you throw away the rules and play by heart." Is it a misfortune that all the manuals and textbooks are written by Aristotelians? The nice thing about textbooks is that they are an index of the student's progress. With a textbook you can get somewhere.

How contradictory, that a great man is not interested in getting anywhere! Even if he knows everything in the books, he is still not interested in progress.

Is it a misfortune that too many Platonists remain ineffectual failures and most Aristotelians gain comfortable positions on the low plateaus of mediocrity?

Is it unfair that the unsuccessful Platonists can't sell out to the other side because their skills are so slight that they have nothing to sell; or that the Aristotelians, despite their industriousness, can never accumulate enough treasure to buy some originality?

South Dakota, like every other state in the Union, is against Communism. But South Dakota, unlike states which have found loyalty oaths and similar protective devices sufficient to their security needs, has been obliged to enact special legislation to frustrate the progress of a local communist society which has not only dared to compete with the capitalist system on its own terms, but in a small way threatens to put capitalism out of business.

This is a curiously contradictory situation. A communal society of Hutterites, Christians who are determined to follow the Biblical injunction to have "all things common," by combining Christian austerity (no television, no fancy cars) with much hard work and group-buying at wholesale prices, has been expanding its agricultural operations at so fast a rate that the old-fashioned type free-enterprisers in the area feel outclassed. So, last July a South Dakota law went into effect denying the Hutterites the right to buy more land. The issue is now in the courts.

A South Dakota legislator explained why the Big Brother Government had to interfere and slow down the all-too-free enterprise of the Hutterite Christians:

The people are nothing more or less than a Communist setup. The children grow up without anything but a communal attitude. It isn't the American way, certainly. They take over large areas. It's equivalent to what happens in a city when Negroes move into a neighborhood. Others move out and the prices drop. Of course they're less prone to psychotic or neurotic troubles because they stay away from efforts to improve our way of life. (*Time*, June 4.)

We're working hard on this, but we haven't got it figured out, yet. Do you suppose a few ulcers would make the Hutterites true-blue Americans?

CHILDREN ...and Ourselves

RECOMMENDATIONS

A NUMBER of years ago, before the benefits of "natural childbirth" became well known to the general public, discussion of the Read method was here invited, since it seemed that this topic brought various philosophical questions into focus. For similar reasons, we now invite similar discussion of "natural" means of correcting defective eyesight, particularly for children.

Most people are aware that there is a school of natural therapy which believes that defective eyesight can usually be corrected by mental disciplines and eye exercises. The pioneer in this field, Dr. W. H. Bates, a New York ophthalmologist who practiced in the early 1900's, became convinced that most of the causes of poor sight are psychological. He held, further, that distorted vision does not result from difficulty with the lens of the eye, but from an inadequate control of the extrinsic muscles of the eyeball. By teaching a system of "dynamic relaxation," Dr. Bates enabled thousands to discard the glasses upon which they had become dependent, and described his techniques of exercise in a book entitled Perfect Sight Without Glasses. Among the most celebrated beneficiaries of the "Bates System," as it has been called, is the novelistphilosopher, Aldous Huxley. After a near miraculous cure of an eye disorder which had been heading swiftly toward total blindness, Mr. Huxley wrote The Art of Seeing, and it is this readable volume we wish to recommend to the parents of all children for whom glasses have been prescribed by orthodox practitioners.

The point is not that glasses are an evil or always unnecessary, but that many, many cases of defective eyesight are susceptible to corrective help from exercise and training. Dr. Bates and Mr. Huxley maintain that the usual manifestations of failing eyesight reflect a psycho-physical condition which eyeglasses are totally unable to remedy. Glasses, they hold, deal with symptoms exclusively, failing to get at the root of the difficulty, and therefore stronger lenses for the glasses-wearer become necessary every few years. The following passage from Huxley's *Art of Seeing* relates directly to cases of defective eyesight problems in children, and to the relevance of the Bates theory:

In children, visual functioning is very easily disturbed by emotional shock, worry and strain. But instead of taking steps to get rid of these distressing psychological conditions and to restore proper habits of visual functioning, the parents of a child who reports a difficulty in seeing, immediately hurry him off to have his symptoms palliated by artificial lenses. As lightheartedly as they would buy their little boy a pair of socks or their little girl a pinafore, they have the child fitted with glasses, thus committing him or her to a complete life-time of dependence upon a mechanical device which may neutralize the symptoms of faulty functioning, but only, it would seem, by adding to its causes.

At an early stage in the process of visual reeducation one makes a very remarkable discovery. It is this. As soon as the defective organs of vision acquire a certain degree of what I have called dynamic relaxation, flashes of almost or completely normal vision are experienced. In some cases these flashes last only a few seconds; in others, for somewhat longer periods.

Occasionally-but this is rare-the old bad habits of improper use disappear at once and permanently, and with the return to normal functioning there is a complete normalization of the vision. In the great majority of cases, however, the flash goes as suddenly as it came. The old habits of improper use have re-asserted themselves; and there will not be another flash until the eves and their mind have been coaxed back towards that condition of dynamic relaxation, in which alone perfect seeing is possible. To long-standing sufferers from defective vision, the first flash often comes with such a shock of happy amazement that they cannot refrain from crying out, or even bursting into tears. As the art of dynamic relaxation is more and more completely acquired, as habits of improper use are replaced by better habits, as visual functioning improves, the flashes of better vision become more frequent and of longer duration, until at last they coalesce into a continuous state of normal seeing. To perpetuate the flash—such is the aim and purpose of the educational techniques developed by Dr. Bates and his followers.

Though such claims for the Bates system may sound a bit incredible to those accustomed to thinking in terms of conventional ocular theory, there is no doubt, as Dr. Huxley asserts, that "the flash of improved vision is an empirical fact which can be demonstrated by any one who chooses to fulfill the conditions on which it depends." So far as we know, no one has conscientiously worked with a Bates-trained therapist without experiencing, after diligent exercise, this "flash"-which reveals to the naked eye, with extreme clarity, objects which had previously appeared blurred or were even quite invisible. The "flashes" may come only occasionally, but they are living proof that Dr. Bates knew what he was talking about, since many who gain such temporary clarity of sight may never before have enjoyed "perfect focus" in their entire lives. While, as Huxley suggests, the eye lens may have something to do with good and bad eyesight, the extrinsic eye muscles, capable of independent exercise, seem to have a good deal more to do with it. Strangely enough, the Bates practitioners are also able to prove that one's mental focus, and the capacity for precise use of the imagination, is directly related to proper eye-functioning. One can literally imagine one's self into clearer seeing-the eye muscles, like the adjustments of a telescope, automatically following suggestions of the mind.

Often, during the early years, unsatisfactory school work is found to be due to blurred eyesight, and to the headaches and strain consequent upon imperfect vision. Having recently watched the eyesight transformation of a ten-year-old child by application of the Bates method—vision, in this case, changing from 40-40 to 20-20 in a space of three months, and this "perfection" being maintained ever since—we feel some obligation to suggest Dr. Huxley's work to any parents who may be interested.

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Another overdue recommendation: Those of our readers who teach, either in public or private schools, will find Kimball Wiles's *Teaching for Better Schools* a clear and helpful volume on comparative evaluation of teaching methods. This book is an excellent bridge between the best in modern educational theory and the actual facts of the classroom. Dr. Wiles teaches education at the University of Florida. His Preface is another revelation of the sort of "awakening" which has led so many instructors of the young to depart from traditional methods and to explore in new directions. Since our last discussion of modern educational theory was in part a criticism of a book of indifferent value by a "New Educationist," the following may balance the ledger on the "New Education." Dr. Wiles writes:

During my first year of teaching, my sixth-grade class finished the textbook we were using two months before the end of the school year. I was desperate for a few days, but it was the most important event of my professional life. My undergraduate training had left me with the belief that *teaching was conducting classes in such a way that pupils learned the content of the textbook.* I'm sure my instructors suggested other things, but I could not hear them. I did not have any idea that pupils should or could have any part in determining what should happen in classes. But with the textbook completed that first year, my mission was accomplished and we were free to do anything that seemed worth while to us.

We took a walk through the Ohio fields and woods the next morning, a beautiful April spring day. And a study of wild flowers emerged. We read science books we found in the library and the class began a more intensive study of how the world was formed than I had ever experienced in high school or college.

My eyes were opened to the difference between the learning that occurs when pupils do assignments and when they work on some project or problem they have deemed important enough to tackle. Never again could I be complacent about making an assignment. Since that time I have been seeking to learn how to work with pupils so that they will have real purpose, as a result of having established it themselves.

Dr. Wiles' explorations, in four hundred pages of surprisingly easy reading, are not, however, primarily intended to confound the traditionalist. He discusses the mental and emotional climate of *all* classrooms, regardless of the particular educational theory the presiding teacher may embrace.

FRONTIERS Matters of Proportion

JUST how seriously should we take the shortage of scientists which educators in science and technology keep warning us about? What sort of disasters must we face if we enter the future with only half or a quarter enough atomic physicists?

The *Saturday Review* for June 2 has two articles concerned with the new importance of scientific knowledge, one revealing the dramatic rewards in dollars to the men who are presumed to know more about protons and electrons than the rest of us; the other an ingenious proposal for saving the time of these very busy men, enabling them to hold technical conferences by means of television—so that they won't have to go running about to get together for these important affairs.

Clare M. Cotton, who covers the "science beat" for the *Wall Street Journal*, reports in the *SR*:

Just as young people fresh out of science courses at college are starting careers on salaries undreamed of by yesterday's youth, established scientists are learning that their knowledge and judgment can be traded for cash in the stock market. Fourteen leading atomic physicists were snapped up on a consulting basis in one day by General Dynamics, maker of the hull of the atomic submarines.

The announcement of that coup was made on the morning of March 16, 1955. General Dynamics stock closed that afternoon on the big board 4-3/8 points above the day before. Before the flurry quieted down 84,000 shares of the stock changed hands. One broker who wouldn't know a neutron if it trotted into a boardroom said afterward: "You have to go with a crowd like that. There's no telling what they might come up with.'

There's nothing bad, of course, about scientists making a little money—or even a lot. But we wonder a little about the fact that becoming a scientist, these days, is something like going into the Aladdin's Lamp business. Is the spirit of science going to be able to stand all this prosperity? If you have problems in your business, just consult the *Arabian Nights*. No, that's wrong. Consult the graduate lists of MIT and Cal Tech. Those are the *djinn* directories for our times.

Mr. John R. Pierce of the Bell Telephone Laboratories, who has thought up the television idea, makes his case by pointing out how much precious time is wasted when scientists need to confer:

Every day busy scientists shuttle here and there by plane and train to attend conferences. How inefficient this is! Attempts have been made to hold such meetings by telephone. But that is very confusing. Often one conferee can't identify the other conferees as he hears them speak. Then, too, it is difficult to explain complex technicalities when you can't even use your hands to illustrate a point....

Could there be a special type of conference phone today, equipped for picture transmission? This would enable conferees not only to identify each other instantly, but it would give them a chance to explain themselves clearly by showing charts or documents or even drawing sketches while they speak.

What are these sketches and explanations that can't wait? A new design for the hull of an atomic submarine, maybe?

Obviously, we don't have the right attitude. We take the view that it is always the unimportant things that can't wait, while the important things can. On a dollars-and-cents basis, televised conferences among technical experts will probably be fine for the industries whose competitive life depends upon such conferences, but how does all this get so important as to deserve space in the *Saturday Review* [of Literature]?

Mr. Pierce may even enable someone to make a sale of a new TV system of inter-executive communications. After all, he works for Bell Telephone Laboratories, which, for all we know, may be in that business. That will be fine for Mr. Pierce's or somebody else's company, and that company's customers. But do we need all this school spirit about the shortage of scientists and clean white space in the *SR* to celebrate such possibilities? Ho hum. From somewhere, by a devious and now forgotten route, we have received a very nice picture of Albert Schweitzer. We always like to see his face, just as we always, along with most other people, like to look at pictures of Abraham Lincoln. There is moral beauty and a renewal of confidence in human beings in such pictures.

Then, along side of the picture, there is a quotation from Dr. Schweitzer's book, *Out of My Life and Thought*. It is a thoughtful paragraph about the impact of advanced cultures upon simpler ways of life:

As things are, the world trade which has reached primitive peoples is a fact against which both we and they are powerless. They have already through it lost their freedom. Their economic and social relations are shaken by it. An inevitable development brought it about that the chiefs, with the weapons and money which commerce placed at their disposal, reduced the mass of the natives to servitude and turned them into slaves who had to work for the export trade to make a few select people rich. It sometimes happened too that, as in the days of the slave trade, the people themselves became merchandise, and were exchanged for money, lead, gunpowder, tobacco, and brandy . . .

Would you like to prevent this wickedness? We haven't followed the logic through to the bitter end, but the American Tariff League, which went to all the trouble of finding this quotation and having it printed up, with a picture of Dr. Schweitzer, too, would probably be very glad to explain it to you in more detail. The main point, as we get it, is that the American Tariff League and Dr. Schweitzer stand for the Same Things. Dr. Schweitzer wants the "primitive peoples" of the world to remain free, their lives left undisturbed by the intrusions and dislocations of economic invasion. And the American Tariff League, which seeks protection for American Industry and to this end opposes the lowering of tariff barriers to the free flow of trade, apparently feels sad about economic invasion, too. The League has a headline for Dr. Schweitzer's quotations which leaves no doubt about the high

motives which led to the selection and printing of them: "The Seamy Side of World Trade." The other quotation is the following:

Whenever the timber trade is good, permanent famine reigns in the Ogowé region, because the natives neglect making new plantations in order to fell as many trees as possible.

Who would have thought that the American Tariff League is sensitive to such things!