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“Man”

Man has long sought to explain his behavior by searching for its causes. Historians and biographers have traced human achievements to conditions of birth, climate, culture, and personal contacts, and some of them have joined philosophers and essayists in more sweeping generalizations. Science has naturally worked in the same direction. The social sciences specialize in statistical demonstrations, but psychology and physiology are closer to history and biography in concentrating on the individual. In any case, more and more of the behavior of organisms, including man, is being plausibly related to events in their genetic and environmental histories. If other sciences are any guide, human behavior may ultimately be accounted for entirely in such terms.

The traditional conception, of course, is very different. It holds that a man behaves as he does because of his wishes, impulses, emotions, attitudes, and so on. His behavior is important only as the expression of an inner life. Many psychologists still subscribe to this view. The good Freudian attributes observable behavior to a drama played in nonphysical space by an immanent *triumvirate* scarcely to be distinguished from the spirits and demons of early animism. Other psychologists merely divide the inner personae into parts, each of which still carries on its little share of mental life. Thus, where a scientific analysis relates behavior to the physical environment, the mentalist may insist that the mind observes only a none-too-reliable copy of the environment called subjective experience. Where a scientific analysis shows that we react in a given way because similar actions in our past have had particular consequences, the mentalist may insist that we act because we have stored memories of past actions and of their consequences, which we now scan in order to reach certain expectations leading to an act of will which initiates behavior. Where a scientific

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analysis traces certain disturbing patterns of behavior to a history of punishment, the mentalist may argue that the disturbance is in the personality and that it is the effect of anxiety, just possibly generated by punishment. The traditional conception of man is an example of an explanatory strategy which was once common in other sciences. It has survived in psychology, possibly because of the extraordinary complexity of the subject matter. As plausible connections with external variables are demonstrated in spite of that complexity, however, the need for inner explanations is reduced. An effective scientific analysis would presumably dispense with them altogether.

That such an analysis will be simpler, more expedient, and more useful will not necessarily mean its adoption, because the older view served other than scientific functions. A behavioristic reinterpretation of mental life is not a fundamental issue for many people, but everyone has a stake in human behavior, and there are other reasons why the scientific picture may not seem to be a picture of man at all. Certain long-admired characteristics of human behavior seem to be neglected, and their absence is more threatening than any implication about the nature of consciousness or the existence of free will.

C. S. Lewis, for example, has gone so far as to argue that science is embarked upon "the abolition of man."¹ He is concerned with the neglect of a familiar feature of the traditional picture—an indwelling *sense* of justice, a felt standard of rightness, an inner source of values. To the traditionalist a human act is not simply a physical movement, it is a judgment, or the expression of a judgment, reached only by applying certain standards of conduct. It is not the act which is essentially human (morally acceptable though it may be), but the application of the standard. We may condition a man to behave in virtuous ways as we condition animals to behave according to any set of specifications, but such a man will not *be* virtuous. According to this view he can be virtuous only if he has not been conditioned to behave well automatically but has arrived at given forms of virtuous conduct by consulting his sense of rightness. (The argument is reminiscent of the complaint that a rational religion destroys piety, that proof of the existence of God deprives men of the opportunity to demonstrate their faith.)

If this traditional conception of man is to continue to challenge the scientific view, however, some thorny questions need to be answered. What *is* happening when a man refers to a standard of rightness? Can this form of behavior be analyzed? Where do standards come from? If the answer

¹ Lewis, C. S. *The Abolition of Man*. New York, 1947.

is that they come from the genetic or environmental history, then the scientific view is not in danger. And this appears to be the case. Lewis, for example, acknowledges that the sentiments he so highly values must be learned. "The little human animal," he says, "would not at first have the right responses"-indeed, in that sense would not yet be human. And he quotes Plato with approval to the effect that such things as taste and compassion must be taught before a child is "of an age to reason." These are the contentions of an environmentalist. The values to which a man must be able to appeal in order to be human are not originally his, and something beyond him is therefore ultimately responsible for his action. (The same unhappy story can be told of all inner explanations of human conduct, for the explanations must themselves be explained-possibly in terms of other inner events but eventually, and necessarily, in terms of forces acting upon a man from without.)

A small issue survives at a technical level. How are we to teach a child to behave well? We can begin by conditioning him to make so many purely automatic, right responses, but we shall find that the number which must thus be taught is distressingly large. It is more efficient, if not actually necessary, to teach him to examine each new occasion as it arises and, by applying certain rules, to arrive at an appropriate response. Such is our practice in teaching multiplication. Up to twelve-times-twelve we condition specific responses, each of which can be quite automatic, implying no understanding of multiplication. Beyond that, we find it expedient to condition certain procedures which permit the child to arrive at a vast number of specific products which it would not be efficient to condition separately.

It is sometimes argued that there is an element of freedom in the application of standards which is lacking in the automatic execution of right responses. But a sense of freedom is another of those inner attributes which lose their force as we more clearly understand man's relation to his environment. Freedom-or, rather, behavior which "feels free"-is also the product of a history of conditioning. In that remarkable book, *Émile*, Jean Jacques Rousseau tried to find replacements for the punitive methods of the schools of his time. He insisted that students should behave as they want, rather than as they are forced to behave through physical coercion. He showed an extraordinary ingenuity in substituting positive inducements for punishment. But he was not turning education over to the pupil himself.

Let {the child} believe that he is always in control, though it is always you [the teacher] who really controls. There is no subjugation so perfect as that

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which keeps the appearance of freedom, for in that way one captures volition itself. The poor baby, knowing nothing, able to do nothing, having learned nothing, is he not at your mercy? Can you not arrange everything in the world which surrounds him? Can you not influence him as you wish? His work, his play, his pleasures, his pains, are not all these in your hands and without his knowing it? Doubtless he ought to do only what he wants; but he ought to want to do only what you want him to do; he ought not to take a step which you have not foreseen; he ought not to open his mouth without your knowing what he will say.²

Thus spoke a great champion of human freedom! Like a sense of rightness or justice, the dispositions which make a given act feel free come from the environment. The surviving question is again technical. What is the best way to bring about those changes which are the object of education? There are many advantages in arranging matters so that the pupil does what he wants to do, but he must be carefully prepared to want to do those things which are required for effective instruction.

Another human attribute which seems to be missing from the scientific picture concerns what one does *not* want to do. In the traditional view a man has duties as well as rights: there are things he must do or suffer the consequences. He is responsible for his conduct in the sense that, if he does not behave in a given way, it is only fair that he be punished. To escape punishment—either the natural punishments of the physical environment or the social punishments of society—he engages in an activity called self-control. When the same ultimate “good” behavior is achieved without using punishment, self-control in this sense is unnecessary.

The omission of personal responsibility from the scientific conception of man has been particularly deplored by Joseph Wood Krutch.³ When we regard a criminal as in need of treatment rather than punishment, for example, we deprive him of “the human attribute of responsibility.” Treatment is only one way of generating good behavior without punishment. Preventive steps are likely to be more valuable. For example, we might control stealing by creating a world free of inciting circumstances (for example, a world in which there is nothing one does not already have or where nothing is within reach to be stolen) or by conditioning behavior which is incompatible with stealing or displaces it (for example, we might strongly reinforce “respecting the property of others” or teach easier, legal

² Rousseau, Jean Jacques. *Émile ou de L'Éducation*. Amsterdam et Francfort, 1762. Page 121 in the Classiques Garnier Edition.

³ Krutch, Joseph Wood. *The Measure of Man*. Indianapolis: Bobbs-Merrill, 1953.

ways of getting things). When we solve the problem in any of these ways, we leave no room for personal responsibility or self-control. We leave no room for moral struggle; and if to struggle is human, we have indeed destroyed something of man.

The same argument holds for nongovernmental punishments. Smoking cigarettes is "naturally" punished by lung cancer or the threat of lung cancer, as overeating is punished by obesity, illness, and the threat of an early death. Aggressive action is punished by retaliative measures. All these aversive consequences normally lead to some measure of self-control. But we can reduce the inclination to smoke, eat, or act aggressively in other ways-and with it the need to control oneself. Appropriate drugs have this effect. A tranquilizer reduces the need to control aggression, an appetite-suppressant reduces the need to control eating, and a drug which would reduce the tendency to smoke cigarettes would reduce the need to control one's smoking habits. Another form of control would be to build a world in which the positive reinforcements now accorded these behaviors are carefully managed. In such a world a man would be either naturally wise and good or at least easily taught to be wise and good. There would be no place for intellectual and moral struggle.

Any technology, physical or social, which reduces punishing consequences reduces the need for self-control and personal responsibility. If the same acceptable conduct is achieved, it is difficult to see why anyone should object. The trouble is that the characteristics which are thus dismissed have long been admired. We admire people who apply ethical and moral standards, who accept responsibility, and who control themselves. We admire them in part because the results are reinforcing to us, for the individual is thus induced to conform to the interests of others. We also admire such behavior just in order to support it. Admiration is a social practice used to eke out a defective control. There are certain kinds of heroism, for example, which society can engender only by effusively admiring them. We induce men to die for their country by convincing them that it is sweet and decorous to do so. Students work hard to be admired by their teachers. Men undergo exhausting labor and suffer pain with patience because they are admired for doing so. Yet technological progress is directed toward making all this unnecessary. In a world at peace there will be no military heroism to admire. We shall no longer admire patient suffering when men seldom need to suffer. We do not even now give men credit for exhausting labor if the labor can be "saved," and we shall not admire students who work hard when there are techniques of education in which they need not "work" at all. We shall no longer admire wrestling

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with the devil, if it turns out that the devil *is* simply a slight disturbance ~~in the~~ hypothalamus which can be allayed by a suitable drug.

In turning to external and manipulable variables, a scientific analysis moves away from supposed inner activities which we have tried to reach through admiration. The inner activity, needing to be admired, naturally seems admirable. Thus we admire a man who can multiply by applying **rules** more than one who merely recites the multiplication table in an automatic fashion, but we admire the latter far beyond one who simply uses a calculating machine. The calculating machine has been designed to reduce the behavior required in multiplication to external, sharply defined, relatively infallible, and almost effortless responses. It improves multiplication, but makes the multiplier less admirable. Plato records an objection to the invention of the alphabet on similar grounds: if *texts were* generally available, a man would seem to know things which he had merely read.⁴ But the alphabet was invented precisely to enable one man to profit from the direct knowledge of another. Must we destroy **all** physical and social inventions in order to recapture a man we can wholeheartedly admire?

Two important features often said to be missing from the scientific picture of man are actually emphasized in it. If man has no freedom of choice, if he can initiate no action which alters **the** causal **stream** of his behavior, then he may seem to have no control over his own destiny. The scientific view of man according to Krutch is a "dead end."⁵ The fact is, however, that men control both their genetic and environmental histories, and in *that* sense they do, indeed, control themselves. Science and **technology** are **concerned** with changing the world in which men live, and changes are made precisely because of their effects on human behavior. We have reached the stage, far from a dead end, in which man can **determine** his future with an entirely new order of **effectiveness**. C. S. Lewis would still protest; in *The Abolition of Man* he wrote, ". . . the power of man to make himself what he pleases means . . . the power of some *men* to make other men what *they* please." But it has always been thus. Men control themselves by controlling the world in which they live. They do this **as** much when they exercise self-control, as when they make changes in their culture which alter the conduct of others.

Another feature of the traditional concept which is emphasized rather than abolished is individuality. Some practices derived from a scientific knowledge of human behavior could no doubt lead to regimentation, as

⁴ Plato. *Phaedrus*. Jowett translation, III: 274e-275b.

⁵ Krutch, Joseph Wood. What I learned about **existentialism**. *Saturday Review*, 45 (April 21, 1962).

practices consonant with traditional conceptions have often done, but there is nothing in the scientific position which makes this inevitable. On the contrary, as the product of a set of genetic and environmental variables man is most reassuringly unique. The uniqueness of the human fingerprint once came as a surprise and, because of its practical usefulness, is still a familiar symbol of individuality. But the body which each man derives from his genetic history is a vast system of unique structures of which the whorls on the ball of the thumb are a ridiculously trivial example. Equally idiosyncratic are all those characteristics which a man derives from his environment. It is true that certain scientific practices are simplified when these sources of individuality are minimized, but there is nothing in scientific practice or theory which threatens individuality or questions the possibility that some collocations of variables arising from these sources will have the outstanding results we attribute to talent or genius.

It is not easy to abandon notions like a sense of justice, a sense of freedom, and personal responsibility or to accept a new interpretation of man's individuality and his power to control his own destiny. Yet it would be remarkable if any conception of man did not occasionally need revision. Human behavior is extraordinarily complex, and it is unlikely that a true definitive account has been reached so soon. The traditional conception has certainly not made us conspicuously successful in dealing with human affairs. The alternative picture which a science of behavior asks us to accept is not really frightening. Man survives unchanged. Physics does not change the **nature** of the world it studies, and no **science** of behavior can change the essential nature of man, even though both sciences yield technologies with a vast power to manipulate their subject matters. Science leads us to see man in a different light, but he is nevertheless the same man we once saw in another light. If we must have something to admire, let it be man's willingness to discard a flattering portrait of himself in favor of a more accurate and hence more useful picture. Even here admiration is superfluous. The hard fact is that the culture which most readily acknowledges the validity of a scientific analysis is most likely to be successful in that competition between cultures which, whether we like it or not, will decide **all** such issues with finality.