

Are Humans Complex Machines? Do I have a Soul or a Will?
Dr. Gayhart Fullerton College

B. F. Skinner and Behavior Modification [Skinner box; "bad boy" of psychology; ---- gives rise to Behavior Modification techniques. Harvard. "Beyond Dignity." Beyond Freedom and Human Dignity (1971). All of our desires are conditioned by external events. There is no such thing as a deeper "self" or even of a "personality." There is no spiritual "ghost" in the machine. We are simply machines, except that we are vastly more complex than any existing human created machine. Talk about our "values" or our "attitude" is inaccurate – there is nothing BELOW the surface. We simply "react" to our environment: you manipulate me and I manipulate you in order to generate changes. That is all.]

Free-Will versus Determinism [Skinner denies that we have a "free" will. Our will, he argues, is completely determined by pre-existing conditions. 'Freedom of choice' is an illusion.]

Classical versus Operant Conditioning [Classical conditioning is found in the example of Pavlov's dogs. Here, the subject is passive: the dog waits for the bell to ring and for food to be dispensed. In Operant Conditioning, Skinner's mode, the subject is not passive but active. That is, the subject operates on its environment to generate consequences. For example, the dog who begs at the table for food or scratches at the door to go out. When we establish a link between behavior and its consequences we call this "conditioning."]

Stimulus-response [best seen in the Skinner box. Teaching a tiger to jump through a hoop; or a dog to do flips is an example of stimulus-response. We present something that will stimulate the animal to perform a behavior. We use shaping = a gradual process of reinforcement that will result in the desired behavior.]

Extinction and spontaneous recovery [Extinction = a behavioral response decreases in frequency when reinforcement decreases. Spontaneous Recovery sometimes occurs. A behavior that has been extinguished may reappear months or years later due to some latent stimulus that we are unaware of now.]

Reinforcement

positive reinforcement [*a response is strengthened by the addition of something to the situation. A rat pressing a lever for food pellets, a worker doing a job for money, a student studying to get good grades, a child "being good" to earn parental approval, and even a person pulling on a doorknob to open a door are all examples of the effects of positive reinforcement*]

negative reinforcement [*Behaviors are strengthened not only by positive reinforcers. Many actions that allow us to escape or to avoid negative consequences also become part of our typical behavior patterns. When this happens, we are being conditioned by negative reinforcement: a response is strengthened by the removal of something from the situation*]

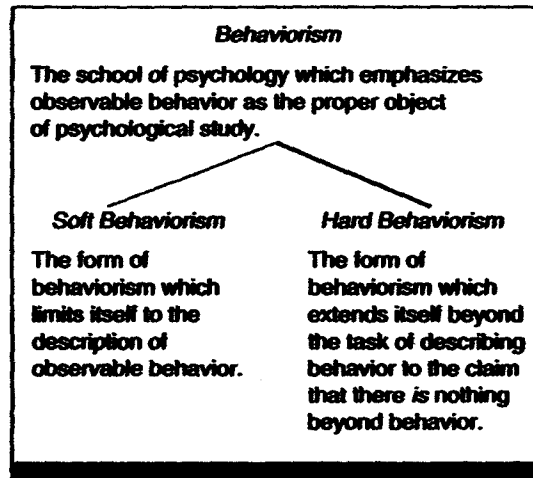
positive reinforcer [*The “something” that is added to the situation: food pellets; money, good grades, parental approval and an open door*]

negative reinforcer [*The “something” that is removed is referred to as a negative reinforcer or aversive stimulus. We have seen that a hungry rat’s lever pressing can be strengthened by positively reinforcing that repose with food pellets. We could also accomplish this using negative reinforcement. If lever pressing removes a painful electrical charge (which can be a negative reinforcer or aversive stimulus), it is very likely that the rat will soon be conditioned to make that response whenever it receives a shock through the floor grid of the Skinner box. Remember, it refers to a process whereby behavior is strengthened, not weakened. Often it is confused with “punishment.” Whereas negative reinforcement results in an increase in the probability of behavior, punishment typically acts to suppress behavior. Very influential determinant of behavior.*]

Examples: the child who does his chores to stop his parents’ nagging; the parent who gives into his child’s demands in order to stop temper tantrums; the student who cuts classes to avoid a teacher’s reprimands for poor performance; the driver who obeys speed limits to avoid being ticketed; the person who gets drunk to escape from stressful life situations, the person who takes aspirin to stop a headache, and so on. Nagging, temper tantrums, reprimands, tirades, speeding tickets, stressful situations, and headaches are negative reinforcers or aversive stimuli. Their removal is reinforcing, and therefore the behaviors that remove them tend to become conditioned]

Aversive Control

punishment [*any event whose presence decreases the likelihood that ongoing behavior will recur. Skinner opposed to punishment. While it does lead to the extinction of undesirable behavior, there are damaging side-effects that may arise—resentment, bitterness, violence, etc.*]



There can be no doubt about the physicalistic and mechanistic character of Skinner's appraisal of the human person. Though Skinner's physicalism, or reduction of the total person to physical states, underlies and pervades Skinner's work everywhere, it is nowhere really argued, at least not with any rigor. Rather, it is treated as an assumption that any enlightened twentieth-century person would surely embrace, in contrast to earlier and "prescientific" notions that uncritically employ ideas such as mind, transcendence, free will, and the like. Our interest in Skinner is not, therefore, so much with his defense of physicalism (because he gives none) but with what he does with it as the foundation of his proposed "technology of behavior," a program of psychological engineering, or manipulation of human nature in the interest of the improvement and progress of the species.

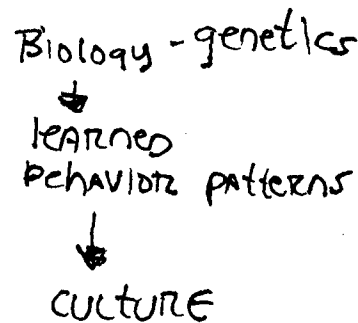
|| Almost all our major problems involve human behavior, and they cannot be solved by physical and biological technology alone. What is needed is a technology of behavior, but we have been slow to develop the science from which such a technology might be drawn. One difficulty is that almost all of what is called behavioral science continues to trace behavior to states of mind, feelings, traits of character, human nature, and so on. Physics and biology once followed similar practices and advanced only when they discarded them. The behavioral sciences have been slow to change partly because the explanatory entities often seem to be directly observed and partly because other kinds of explanations have been hard to find. The environment is obviously important, but its role has remained obscure. It does not push or pull, it *selects*, and this function is

↙ No substance to these words

difficult to discover and analyze. The role of natural selection in evolution was formulated only a little more than a hundred years ago, and the selective role of the environment in shaping and maintaining the behavior of the individual is only beginning to be recognized and studied. As the interaction between organism and environment has come to be understood, however, Effects once assigned to states of mind, feelings, and traits are beginning to be traced to accessible conditions, and a technology of behavior may therefore become available. It will not solve our problems, however, until it replaces traditional prescientific views, and these are strongly entrenched. Freedom and dignity illustrate the difficulty. They are the possessions of the autonomous man of traditional theory, and they are essential to practices in which a person is held responsible for his conduct and given credit for his achievements. A scientific analysis shifts both the responsibility and the achievement to the environment. It also raises questions concerning "values." Who will use a technology and to what ends? Until these issues are resolved, a technology of behavior will continue to be rejected, and with it possibly the only way to solve our problems. . . .

A child is born a member of the human species, with a genetic endowment showing many idiosyncratic features, and he begins at once to acquire a repertoire of behavior under the contingencies of reinforcement to which he is exposed as an individual. Most of these contingencies are arranged by other people. They are, in fact, what is called a culture, although the term is usually defined in other ways. Two eminent anthropologists have said, for example, that "the essential core of culture consists of traditional (i.e., historically derived and selected) ideas and especially their attached values." But those who observe cultures do not see ideas or values. They see how people live, how they raise their children, how they gather or cultivate food, what kinds of dwellings they live in, what they wear, what games they play, how they treat each other, how they govern themselves, and so on. These are the customs, the customary behaviors, of a people. To explain them we must turn to the contingencies which generate them.

Some contingencies are part of the physical environment, but they usually work in combination with social contingencies, and the latter are naturally emphasized by those who study cultures. The social



contingencies, or the behaviors they generate, are the "ideas" of a culture; the reinforcers that appear in the contingencies are its "values."

A person is not only exposed to the contingencies that constitute a culture, he helps to maintain them, and to the extent that the contingencies induce him to do so the culture is self-perpetuating. The effective reinforcers are a matter of observation and cannot be disputed. What a given group of people calls good is a fact: it is what members of the group find reinforcing as the result of their genetic endowment and the natural and social contingencies to which they have been exposed. Each culture has its own set of goods, and what is good in one culture may not be good in another. To recognize this is to take the position of "cultural relativism." What is good for the Trobriand Islander is good for the Trobriand Islander, and that is that. Anthropologists have often emphasized relativism as a tolerant alternative to missionary zeal in converting all cultures to a single set of ethical, governmental, religious, or economic values. . . .

It is the nature of an experimental analysis of human behavior that it should strip away the functions previously assigned to autonomous man and transfer them one by one to the controlling environment. The analysis leaves less and less for autonomous man to do. But what about man himself? Is there not something about a person which is more than a living body? Unless something called a self survives, how can we speak of self-knowledge or self-control? To whom is the injunction "Know thyself" addressed?

It is an important part of the contingencies to which a young child is exposed that his own body is the only part of his environment which remains the same (*idem*) from moment to moment and day to day. We say that he discovers his *identity* as he learns to distinguish between his body and the rest of the world. He does this long before the community teaches him to call things by name and to distinguish "me" from "it" or "you."

A self is a repertoire of behavior appropriate to a given set of contingencies. A substantial part of the conditions to which a person is exposed may play a dominant role, and under other conditions a person may report, "I'm not myself today," or "I couldn't have done what you said I did, because that's not like me." The identity

We Act on the environment to create "culture"

And the environment acts upon us