

## *Political implications of applying behavioral psychology*

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In recent years, there has been a steady growth in the application of the science of behavior. All applications, whether described as programmed instruction, behavior therapy, or behavior modification, reflect the same underlying principles. All involve a behavioral analysis of the situation and the arrangement of reinforcing consequences dependent upon (or contingent upon) the desired behavior; these relationships between behavior and its consequences are generically termed contingency management.

"Behavior therapies" are used in the treat-

ment of a variety of problems from alcoholism to a long and growing list of phobias. In

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work with autistic and severely retarded children, capabilities have been elevated to levels not thought possible only a few years ago. On mental hospital wards daily activities of patients have been managed through application of principles of reinforcement in procedures that have come to be called "token economies." The tokens or points act as reinforcers for specified behaviors and are exchangeable for goods and services. Recently economists also have expressed interest in using token economies as an experimental laboratory for economics.

Another area of most rapid adoption of behavior modification procedures is in prisons and juvenile detention centers; behavior modification can increase the possibility of rehabilitation. Within prisons behavior therapy has been used with individual prisoners, and reinforcement procedures, including token economies, have been implemented to manage the behavior of groups of prisoners. Such model prison programs are found across the country, and the Bureau of Prisons is currently planning a large research center to investigate further use of behavior modification in prisons.

In the schools from preschool through higher education, examples of behavior management principles for controlling classroom behavior are visible as well as principles for the design of curricular materials and the individualization of instruction. However, the army and industry have been the heaviest users of programmed instruction, and now experimentation in industry includes the use of behavior modification procedures in management.

The various uses of the science of behavior in modifying or managing human behavior show mixed results. Many instances are spectacular successes, others at best qualified successes, and some would have to be judged failures. But like other efforts which are based on scientific findings and which use scientific method in their development, a steady increase in the management of behavior is likely as the failures are discarded and the successful techniques are improved. Once developed, little training is needed to apply the procedures and, moreover, they often can be automated.

It is just such an increase in use of behavior modification principles that Skinner (1971) calls for in his recent book, *Beyond Freedom and Dignity*. He argues that much of the discontent in our society results from the use of aversive control. Behavioral technologists can aid design of reinforcement contingencies using positive reinforcement; hence, discontent will lessen because people will be doing what they "want."

While the behavioral scientist feels the flush of success, there are growing objections from those who view these accomplishments with alarm. The critics are the people who Skinner labels the writers of the literature of freedom and dignity. I believe that behind their concerns there are problems which merit every bit of the concern expressed. It is unfortunate, even dangerous, however, that the issue is drawn along invalid lines. Some argue for free will and speak against the proposition that all behavior follows certain fundamental laws which enable the manipulation of behavior. Others claim that, at least, if behavior were left alone by the managers, there would be basic personal freedom. In rebuttal, the scientist presents evidence of the lawfulness of behavior and reports of success in the clinic, in the school, and in prison rehabilitation. Surely such lawfulness speaks for deliberate design in the control of human affairs rather than leaving accidental contingencies in force.

It is possible to accept both the facts of behavioral science and the aims and values of those who speak against exploitative manipulation of behavior. Indeed, most behavioral scientists probably share these values with their critics. Even so, these same scientists seldom question the broader social or political implications of their work. In the design of culture and in the use of behavior management in the today's society, how will be this work ultimately be used? Into what shape will society evolve when today's decision-makers increasingly use behavior modification? Does contingency management automatically establish some of the worst features of our society as a by-product? On the other hand, are there alternative societal values and structures, however different, however revolutionary, that we need move

toward? Given a completely different set of goals for society, what role might contingency management play in the formation and maintenance of such a society?

There is a real and critical basis for the resistance to the increased use of the experimental analysis of behavior in the design of social control systems. The danger is all the greater because the techniques of behavior modification do work, notwithstanding the critics' claim that they are ineffective. Problems of how behavior management should be used arise not in the science but in the social order of which the behavioral scientist is a part. In a radically different equalitarian society, there would not only be a role for the design of deliberate behavior change, but the successful transition from the present society to a revolutionary society requires such planned change. However, the form that behavior modification would take in revolutionary societies, while reflecting the same underlying laws of behavior, would be quite different in the nature of reinforcers and in the way contingencies would be set and assessed.

Those familiar with Skinner's (1948) earlier Utopian society, *Walden Two*, may imagine the consequences of Skinner's suggestion to be politically radical since *Walden Two* was a society involving social and material equality with little or nothing in the way of elitist hierarchies. But *Walden Two* had a hypothetical founder, Frazier, who created the society. When behavioral principles are recommended to those in authority in today's society, the implications are quite different, and the results are likely to be quite conservative. Persons with authority to manage others, whether nationwide or in small groups in classrooms, prisons, etc., are increasingly looking to the behavioral technologists to further their present objectives. The use of behavior modification then relates directly to existing power relationships. Often the psychologist, like other scientists, sees himself as totally uninvolved in the application of his work, and, indeed, the science theoretically can be used in the context of any culture. But whether the psychologist is concerned or not, the growing use of contingency management in our society most

often is in the service of our present elite.

The relationship between the psychologist and the recipient of behavior modification often is not the traditional one of professional to client. The person or group of persons whose behavior is being modified may be controlled for the benefit of yet some other person or group. It seems clear that in our present social system the people who determine whose behavior is to be changed and toward what end are those in established positions of power. The science will be at the service of those who command the means to use it. One illustration is the U.S. Army's use of a behavior management system for basic training (Datel and Legters, 1970). At Fort Ord, a token-economy reinforcement system covers all aspects of basic military training from barracks inspection, standing formations, rifle-range training, to various objective test performances. Officers and non-coms punch designed areas on the trainee's card when reinforcement criteria are met. The points accumulated are exchangeable for privileges, such as attending a movie or getting a weekend pass, and the highest third get a promotion and raise in pay at the completion of the eight weeks of training.

Thus behavior modification serves power by creating a better army. One may applaud the replacement of the traditional aversive control by positive reinforcement, and it certainly must seem more humane to the trainee, but it was not done for the purpose of humanity. It was done to make a better army. The developers, Colonel Datel and Colonel Legters, readily learned that aversive control generates countercontrol and that a more effective army could result from the introduction of positive reinforcement. The form of the contingency management used by them legitimates an elitist structure which is typical of many token economies. The trained cadre, the drill sergeant, the platoon sergeant, and the officers hand out the points. The behavior management system itself takes on the characteristics of the elitist structure it serves. But the important point is the relationship between the person the system is operating upon and the person or institution the behavioral techniques really serve. The reinforcement sys-

tem was not designed for the soldiers; it was designed for those who run the army. The army is the client, but the individual soldier is the one who receives the treatment. As such, the ultimate worth of the system will depend on the evaluation of the army's mission, not on the effect on the soldier.

The fact that these techniques serve those in power can be unequivocally illustrated by the use of behavior modification in foreign pacification programs. Here the resources for using the techniques exist on a gigantic scale compared to the occasional worthy use in mental hospitals at home. A survey among experts in weapons systems conducted by the Rand Corporation (Gordon and Helmer, 1964) projected the behavioral control of mass populations as a major weapons system. Most of these experts expected it to be reality by 1980; that's good old American know-how beating by four years the English masters of 1984. In what amounts to an outright lobby to get free-flowing money the military will spend on counterinsurgency, a panel on "Defense Social Sciences and Behavioral Sciences" was formed under the sponsorship of no less than the National Academy of Sciences. The opening of this report clearly indicates how some psychologists eagerly solicit the chance to use behavioral science to manipulate behavior on behalf of the military establishment.

"The DOD mission now embraces problems and responsibilities which have not been previously assigned to a military establishment. It has been properly stated that the DOD must now wage not only warfare but 'peacefare' as well. Pacification, assistance, and the battle of ideas are major segments of the DOD responsibility. The social and behavioral sciences constitute the unique resource for support of these new requirements and must be vigorously pursued if our operations are to be effective. Hardware alone will not win modern wars without effective use of manpower in foreign environments, an understanding of the dynamics of cultural change, and a perception of the varying needs, attitudes, and ethics of other peoples. The problems presented by this broadening of mission demand the attention of all the dis-

ciplines included under the social and behavioral sciences, operating in a multidisciplinary, coordinated manner."<sup>1</sup>

Crude versions of contingency management have been used for some time in our pacification programs. A chapter on military psychology from a general psychology textbook (Walters, 1968) describes a case study in a so-called Token Civic Action Program which included the use of candy to reinforce village children and a lottery to reinforce retention of propaganda leaflets. A number of other contrived efforts to use trivial positive reinforcement are included in the so-called pacification of the village. Fortunately, these procedures are primitive and probably relatively ineffective. But as the science improves, the people of future Vietnams will not fare so well. One hardly can argue that the recipients of behavior modification are served by these manipulations.

A yet more odious and obvious example is found in a research proposal prepared in 1967 by the American Institutes for Research which requested and received more than a million dollars to work on problems of counterinsurgency in Thailand. The proposal (American Institutes for Research, 1967) describes the dependence of the nature of appropriate reinforcers on a subject's past history and present circumstance and gives the following practical suggestion:

"The offer of food in exchange for certain services affords a convenient example. If this has in the past been a strong stimulus, it can probably be weakened by increasing local agricultural production. If it has been a weak or neutral stimulus, it can probably be strengthened by burning the crops [p. 7]."

Nor are the benefits of this research to be limited to Thailand. The report (American Institutes for Research, 1967), continues:

"The potential applicability of the findings

<sup>1</sup> This quotation from the "Report of the Panel on Defense Social Sciences and Behavioral Sciences" was reproduced in *The Washington Report*, 1967, 3, edited by Michael Armine and published by the American Psychological Association. The report of the panel was not made public.

in the United States will also receive special attention. In many of our key domestic programs, especially those directed at disadvantaged subcultures, the methodological problems are similar to those described in this proposal, and the application of the Thai findings at home constitutes a potentially more significant project contribution [p. 34]."

For whose benefit are they planning to manipulate the reinforcing value of food—for the army and the American imperialists—and whose behavior is to be modified?

Closer to home, one of the stories circulating among operant conditioners is about a visit made by Ronald Reagan, governor of California, to a hospital ward at Patton State Hospital in California. There he watched with interest the token reinforcement system used to control the ward behavior of psychotic patients. Reagan, who has a long history of fighting what he considers "welfare hand-outs," was impressed by what he saw at Patton State and commented that this was the kind of giving that he was in sympathy with because "it was given for doing something." The story is usually told with some glee at the fact that the liberal psychologist seems to have deceived Reagan. But I think Reagan may be the more perceptive one in this case. The token economy, in this instance and in many other instances, follows an elitist system and seems to legitimize that form. Moreover, while I know those conducting behavior management programs on hospital wards and in prisons, etc., will take issue with me, the decisions as to what behaviors should be reinforced very often depend upon the creation of ward behavior that pleases hospital personnel. "Big Nurse" of Kesey's (1962) *One Flew Over the Cuckoo's Nest* simply adds tokens to her arsenal. Although making beds, sweeping the floor, and keeping the place neat may be valuable behaviors to the patients themselves, they more clearly reflect what Big Nurse desires. It is questionable whether nurses walking around handing out tokens do much to establish personal self-esteem in the patient. Again, the question is whether the real client is the hospital establishment or the patient.

In the schools we also find this dilemma.

A psychologist used reinforcement procedures in what he called "survival training" for young kindergarten children who were to enter conventional schools (Risley, 1971). The phrase "survival training" suggests a psychologist helping a client struggle in an oppressive system. But reading on, one finds that the so-called survival training consisted of teaching children to line up and sit quietly and avoid engaging in talking or other behavior which the teacher might consider disruptive; in other words, the student learned to do what the school establishment demanded. All this was gained through positive reinforcement rather than through aversive techniques, but it seems more like capitulation than survival.

In any contingency management system involving many people, it is difficult to determine when contingencies have been met. This limits the more stringent applications to confined, supervised situations such as classrooms, hospital wards, and prison cell blocks. However, modern technology has increased the ability of governmental or other authorities to extensively control the activities of a much larger population. The combination of the development of modern surveillance techniques, the use of computers, and further, the creation of large data banks considerably extend this possibility.

A psychologist recently has described preliminary work on a special belt which allows two-way voice communication both to monitor a subject's voice and simple physiological data and to give feedback to the subject (Schwitzgebel, 1969). The belt can work in the community over a limited broadcast range, and attempts to remove the belt can be determined. This device might be useful in monitoring people with medical problems as diabetes or epilepsy, but it also could be used to monitor the movements and activities of parolees. It is easy to imagine the belt's introduction as a liberal alternative to preventive detention. It is estimated that it would be technically feasible to monitor several hundred individuals in a single city wearing such belts.

Other developments in the technology of secret surveillance already are used extensively by agencies of the federal and local

governments and by numerous private companies (cf. Westin, 1970). Coin-sized radio transmitters easily planted in briefcases, pockets, cars, and elsewhere can track an individual's movements. Very small radio transmitters can transmit conversations over short distances while the radio pill can be substituted in bottles of antihistamines and, when swallowed, enable tracking of a person throughout the day. TV camera monitoring has become commonplace in apartment elevators, lobbies, subway cars, prison cell blocks, stores, and even on street corners. Moreover, there are techniques for hiding TV cameras in rooms including the use of fiber optics which can transmit images around corners. Techniques perfected by the military enable surveillance even in darkness. Surveillance of speech over long distances requires antennae, and there are ingenious devices for hiding antennae in the seams of clothing and in the thread which stitches a coat. Receivers can be concealed in belts and belt buckles. Microphones and transmitters come disguised as a variety of common objects including water coolers, desk sets, clocks, and ashtrays. Also a variety of techniques have been perfected for bugging rooms that the agent cannot enter.

Another development of a rapidly growing technology which can increase the determination of reinforcement or punishment contingencies is the data bank. The government is already pooling the information available on every citizen—information on taxes, social security, census, the draft, applications for federal jobs, etc. Other computerized information exists in other segments of society, and, theoretically, with the rapid development of computer technology, this data could easily be drawn upon and further combined. This additional information includes credit, insurance, medical, educational, and library records. Moreover, it is projected that we will move to a "cashless" society in which the credit card will be used in all purchases, and salary will be automatically credited to accounts. As such, an individual could be tracked across the country as he traveled, rented cars, checked into motels, and made various purchases. The future potential for large-scale contingency management in these systems seems impressive indeed.

All examples of behavior modification described in this paper benefit someone higher in an elitist hierarchy than the recipient of the procedure. All use some form of direct material reinforcement, and some use competitiveness. All mimic the elitist form in that the system is run by people of special status.

What role could behavioral psychology play in a new revolutionary society? Let us suppose that the goal of the revolutionary society is that every citizen is equal in his status and in his access to material needs, with no possibility of one group amassing wealth at the expense of others. Stress is on group wisdom; individual accomplishment is valued if it contributes to group accomplishment not individual gain. Here the old reinforcement systems of competition, accumulation of wealth, and assent in the elite system of power are replaced by altruism, pride in work, and cooperation. Behavior leading to the development of separate managerial, intellectual, or academic classes would not be reinforced.

To succeed, reinforcement systems would have to change; revolution requires the re-making of man. Reich (1970) in his book, *The Greening of America*, has suggested that the new counterculture in the United States constitutes just such a revolutionary change. Another example is China's cultural revolution which was an apparently successful attempt to rid society of continued or new forms of elitism. Intellectuals and managers were reeducated and now engage in manual labor a part of the time. Students entering the university are not from an entrenched middle or upper class; they are nominated by their fellow workers in participatory meetings in which discussion centers around who might best use the education to serve society. If the success of revolution depends on the changing of man, the changing of values, or better, the changing of the nature of each individual's reinforcement system, surely there must be an important role for a science of behavior modification. However, a serious problem remains, i.e., identifying how the science can be used.

While most behavior modification work is counterrevolutionary, there are a few examples that may have merit as systems that

are compatible with a new society. One example is found in Skinner's (1948) *Walden Two* in which an egalitarian society is described in which managers have no special status. A work-credit system with interesting properties as a societal token economy is also employed. The total work pool is constantly reassessed and "work credits" are divided up among the jobs. The principle of assigning credits is in the reverse order of the empirically determined desirability of the job. That is, an undesirable job earns more credits than a desirable job, and someone choosing the undesirable job might need to work only an hour a day while someone choosing the most enjoyable work might work four hours a day. There is a premium on improved techniques and no need for "making work" because the more efficiently tasks are done, the lower the total work pool and the better it is for everyone. Although this is a fictional society, the work-credit system currently is being used in an experimental community called Twin Oaks near Lyons, Virginia.

A second example of a system with compatible revolutionary values is a system developed by Fred Keller (1968) for conducting college courses. Along with the reading, lab work, movies, or other source materials, there are questions or exercises prepared for the student. The answers are reviewed and discussed by other students who previously completed those units. Although some lectures and demonstrations are given by the instructor, they are relatively infrequent and are not required. The critical conduct of the course, completing one's own units and monitoring one's peers, is in the hands of the students. Thus, the elitism of conventional classrooms is lessened.

A third example involves a deliberate effort to use reinforcement principles in the struggle for social justice. A token economy (using "freedom money") was used in reinforcing welfare recipients for activities in organizing and working for welfare rights

(Miller and Miller, 1969). Although the originators of the system initially arranged reinforcement for such things as attendance at meetings, as the activities got under way the group took over the task of determining the criteria for reinforcement and in dispensing reinforcers.

A fourth and last example involves a greater change and is less compatible with traditional behavior modification. At Mendocino State Hospital in California, alcoholic "patients" become "students" of behavioral psychology (Rozytko, Flint, Hammer, Swift, Kline, and King, 1971). The view was developed that the patients could alter the determining conditions and work with their individual "hang-ups." Individually, the students identified the situations that created anxiety for themselves and prepared a graded series of these instances to be administered by a fellow student. Together the students worked on methods of coping with the situations, and administered the desensitization procedures. Conditions were created to increase self-esteem and deal with the types of social situations which had caused difficulty. In short, a reinforcing community of peers was established which changed the values, attitudes, and social behavior of its members.

### **Conclusion**

The use of contingency management by a group of peers who are themselves the object of the behavior modification is possible but rare. Most cases involve manipulation of behavior by trained personnel who oversee the behavior management system for the benefit of some third party. Those who apply behavior principles are dealing with the very core of power relationships among people and cannot be considered politically neutral. The choice is whether the science is to serve the elite or the people who are the object of management procedures.