People's incessant struggles to exercise self-control have been hindered by their misconceptions about its nature. Self-control is viewed here as a complex behavior—i.e., as a sequence of specific acts influenced by conditions both internal and external to the person. A person can exercise self-control when he has learned how to manage these internal and external conditions. Three general strategies by which people can learn and use self-control (or self-management) skills are explained and illustrated: self-observation, environmental planning, and manipulation of the consequences of behavior by self-administered techniques. The results of the few studies conducted to date indicate that all three strategies can be effective and that at least one of them is present in all successful attempts at self-control.
Research and Development Memorandum No. 90

BEHAVIORAL SELF-CONTROL: POWER TO THE PERSON

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SCHOOL OF EDUCATION  STANFORD UNIVERSITY
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Stanford, California

July 1972

Published by the Stanford Center for Research and Development in Teaching, supported in part as a research and development center by funds from the United States Office of Education, Department of Health, Education, and Welfare. The opinions expressed in this publication do not necessarily reflect the position or policy of the Office of Education and no official endorsement by the Office of Education should be inferred. (Contract No. OEC-6-10-078, Component 1F.)
Introductory Statement

The Center's mission is to improve teaching in American schools. Too many teachers still employ a didactic style aimed at filling passive students with facts. The teacher's environment often prevents him from changing his style, and may indeed drive him out of the profession. And the children of the poor typically suffer from the worst teaching.

The Center uses the resources of the behavioral sciences in pursuing its objectives. Drawing primarily upon psychology and sociology, but also upon other behavioral science disciplines, the Center has formulated programs of research, development, demonstration, and dissemination in three areas. Program 1, Teaching Effectiveness, is now developing a Model Teacher Training System that can be used to train both beginning and experienced teachers in effective teaching skills. Program 2, The Environment for Teaching, is developing models of school organization and ways of evaluating teachers that will encourage teachers to become more professional and more committed. Program 3, Teaching Students from Low-Income Areas, is developing materials and procedures for motivating both students and teachers in low-income schools.

One component of the program on Teaching Effectiveness deals with the development of personal competencies, i.e., the development of methods that can be used to teach individuals how to function more effectively. This memorandum on behavioral self-control briefly outlines some basic strategies for developing self-management skills.
Abstract

People's incessant struggles to exercise self-control have been hindered by their misconceptions about its nature. Self-control is viewed here as a complex behavior—i.e., as a sequence of specific acts influenced by conditions both internal and external to the person. A person can exercise self-control when he has learned how to manage these internal and external conditions. Three general strategies by which people can learn and use self-control (or self-management) skills are explained and illustrated: self-observation, environmental planning, and manipulation of the consequences of behavior by self-administered techniques. The results of the few studies conducted to date indicate that all three strategies can be effective and that at least one of them is present in all successful attempts at self-control.
How many times have you set out to stop smoking, lose weight, restrain your temper, or improve your relations with another person? Like most people, you may have admonished yourself to exercise some will power and really make a go of it. But then, after some brief and minor progress, your resolution fell victim to forgetfulness, loss of motivation, or any of the other popular excuses for unsuccessful self-control. Frustrated and beaten, you may have decided that your habit wasn't so bad after all—not all smokers develop cancer—or that you are "naturally" inclined toward obesity, temperamental behavior, or the like. You may even have decided that you simply don't have what it takes, namely the "will power," to master your vices. All too many efforts at self-regulation follow this pattern.

The notion of self-control is often associated with the ideals of freedom and self-improvement. A free person is one who guides and directs his own actions. He is the master of himself and his immediate environment. Moreover, we value self-control because of its role in the survival of our society and culture. One measure of a "civilized" society is the degree to which its inhabitants direct, maintain, and coordinate their activities without external coercion. If more individuals could develop effective self-management skills, the need for professional helpers and the number of passive, "you help me" patients might be sharply diminished.

The term "self-control" has meant different things to different people. Its most popular synonym, by far, has been "will power"—a vaguely defined inner force. Other definitions have emphasized personality traits or supernatural forces. One of the oldest examples of effective self-control was reported by Homer in describing the travels of Odysseus. To manage the bewitching effects of the Sirens, Odysseus had his oarsmen fill their ears with beeswax. To manage himself he commanded his men to tie him to the mast after warning them not to release him under any circumstances. Instead
of beseeching the gods for aid or admonishing himself to exercise his will power, Odysseus altered some important environmental factors.

Vague notions and mysticism, have dominated our perspectives on self-control. Unable to fully understand how some individuals have been able to demonstrate self-control in the face of very trying circumstances, we have called their capacity "will power," or have attributed their behavior to the influence of some supernatural entity or hitherto hidden personality trait. This way of thinking about the problem has retarded understanding and discouraged research by its circularity. The person who demonstrates self-control by resisting a major temptation, such as the heavy smoker who quits cold turkey, is often described as having will power. How do we know he has will power? Well, he quit smoking, didn't he? Observing a self-regulative behavior, inferring will power, and then using the latter to "explain" the former is an all too frequent journey in discussions of self-control. It does not take us beyond the behavior to be explained. If John's unsuccessful attempt to lose weight can be attributed to his lack of will power, then we need not look any further for causes (or solutions). The question is whether conceiving of self-control as the exercise of will is useful in understanding self-regulatory processes. To date, the consensus among people who have studied self-control is that the volitional approach has seriously impaired the collection and interpretation of knowledge about self-management.

What are the alternatives to the Will Power party? If we had listened to Homer many centuries ago, perhaps our efforts toward understanding self-control would not have gone so far astray. The key to Odysseus's success was in recognizing that self-control is integrally bound up with immediate environmental considerations. During the past decade we have again learned that an individual's ability to control his own actions is a function of his knowledge of and control over situational factors. A rapidly expanding body of evidence indicates that effective, durable methods of self-regulation can be established if attention is given to the significant relationships between the person and his environment. Indeed, preliminary studies have pointed toward the possibility of creating a "technology" of behavioral self-control—a set of procedures that the individual can learn
to use in directing and managing his own internal and external actions (Thoresen & Mahoney, in press).

The acquisition of these self-control skills is dependent on the person's ability to identify patterns and causes in the behaviors to be regulated—to pick out cues or events that frequently precede overeating, for example, or to notice the consequences that often follow smoking. The Greek maxim "Know thyself" might be paraphrased as "Know thy controlling variables." Beyond this, a person must know how he can alter the factors that influence his actions in order to bring about the changes he desires. In effect he must become a scientist investigating himself. He begins by observing what goes on, recording and analyzing personal data; he learns to use certain techniques to change specific things, such as thought patterns or his surroundings; and finally he examines the data about himself to see whether the desired change has occurred.

The assessment part of this model is worth discussing further, since people are not accustomed to being systematic about observing their own actions. Attending to the everyday situations where the problem behavior occurs is crucial. What happens, for example, just before Carol, the incessant smoker, reaches for another cigarette? The "antecedents" or prior events include what Carol is thinking, what she is saying to herself, and perhaps what she is imagining. Prior events also include the physical and social setting: two friends, a cup of coffee, an ashtray on the table. The immediate consequences of having that cigarette also demand careful observation, in terms of internal reactions as well as the actions of others. Examining the ABC's—the Antecedents of a Behavior and its Consequences—helps reveal what may be controlling the behavior.

Behavioral self-control generally involves three factors—the specification of a behavior, the identification of antecedent cues and environmental consequences, and the alteration of some of the antecedents and/or consequences. But how does one do it? Preliminary research has shown three major approaches (Thoresen & Mahoney, in press). At least one of them has been present in every successful self-control attempt thus far reported.
The first strategy is simply self-observation. This means that the person attends to his own actions and records their occurrence in order to check up on himself and evaluate his progress. As mentioned earlier, few people are in the habit of carefully monitoring their own behavior. The use of golf counters, diaries, or wall charts can encourage accurate self-observation. The individual who records his own behavior not only becomes more aware of himself but also receives both immediate and cumulative feedback on what he is (or is not) doing. For example, a weight chart in the bathroom might show trends in weight gain or weight loss (such as large increases around weekends and holidays) and it might point up gradual changes that would otherwise go unnoticed. Self-recorded data may also provide significant information on the rate of occurrence of a behavior, its eliciting cues, and its consequences. Recording devices like those mentioned above help make objective self-evaluation possible: if my personal data indicate that I am changing in a desired direction, then I have good reason to feel positive about myself.

The research evidence on self-observation seems to indicate that desired behaviors can often be increased simply by being recorded. The implications of the data on self-observation of undesired behaviors are not yet clear. In a recent study, an adolescent girl concerned with doing better schoolwork in a history class was asked to observe and record her studying in class (Broden, Hall, & Mitts, 1971). In one week this procedure alone increased her studying in class from about 30 percent of the available time to over 80 percent, an increase that continued after the self-observation procedure had been gradually phased out. Self-observation in this study and others can be viewed as a kind of behavioral sensitivity training. The systematic recording of a particular action—in this case, studying or not studying—sensitizes the person to himself. Although further research is needed to determine the most effective types of self-observation for specific kinds of behavior, we may tentatively conclude, that the systematic recording of one's own behavior can sometimes have a dramatic effect on that behavior.
Altering the Environment

The second self-control strategy might be labeled environmental planning. This involves changing one's environment so that either the cues preceding a behavior or the immediate consequences of it are changed. Odysseus changed his environment, for example, by altering the antecedent cues for his men and by arranging for his own behavior to be controlled when temptation arose. Often, environmental planning involves eliminating or avoiding situations in which a choice is necessary. Avoiding cigarette machines, buying only dietetic snacks, and carrying only minimal amounts of money are effective ways of controlling smoking, overeating, and overspending. Other strategies rely on rearranging environmental cues. Obesity is often affected by social and physical cues that prompt eating in the absence of physiological hunger. Thus, many people eat to avoid waste (particularly in restaurants) or because a clock tells them to eat. Environmental cues such as a television set, a cookie jar, or a kitchen can also elicit eating behavior. Stuart (1967), in an early study on behavioral self-control of overeating, showed that individuals trained to detect and alter maladaptive eating cues significantly reduced their weight. This success was attained by such strategies as restricting eating to a specific and novel room, making food cues less salient around the home, and gradually slowing the pace of eating.

This finding has since been shown to be highly consistent and applicable to behaviors other than overeating. Upper and Meredith (1970), for example, have reported a successful study on smoking reduction. They trained smokers to break longstanding, cue-elicited smoking patterns by altering the physical cues to smoke. A smoker was asked to record his initial daily smoking rate. The average time between cigarettes was then computed, and the person was asked to wear a small portable timer. Initially, the timer was set to buzz whenever the average inter-cigarette time elapsed. The smoker was instructed to smoke only after the timer buzzed. By establishing this new environmental cue to smoke, previous cueing situations, such as the completion of a meal, a conversation with a friend, or a stress experience, were displaced. Gradually, the interval between cigarettes was increased until the frequency of smoking was greatly reduced.
These and other studies have shown that altering the environment can help the person modify chronic and resistant behavior problems.

**Altering the Consequences of Behavior**

The third self-control strategy might be labeled behavioral programming. Here the individual concentrates on altering the consequences of his behavior rather than its eliciting cues. Self-reward and self-punishment, are common examples of self-administered therapeutic techniques. Both internal and external events can be used as consequences in this programming. For example, self-praise, self-criticism, and pleasant or unpleasant mental imagery might be used as self-administered internal consequences for an act. External consequences might include special privileges (e.g., allowing oneself to watch a favorite television program) and/or tangible rewards (e.g., clothing, a hobby item, etc.). Private contracts ("If I do this, then I get that") are common in individual programming.

An illustration of this approach is provided by a case history of a schizophrenic young man whose problem behavior involved frequent obsessive thoughts about being physically unattractive, stupid, and brain damaged (Mahoney, 1971). After he had assessed the initial frequency of these maladaptive thoughts through self-observation, the man was instructed to punish himself by snapping a heavy-gauge rubber band against his wrist whenever he engaged in obsessional thoughts. When the frequency of these thoughts had been drastically reduced, positive self-thoughts were established and gradually increased by using a cueing procedure paired with self-reward. To "prime" these thoughts, the man was asked to write down three positive things about himself on small cards attached to his cigarette package. Whenever he reached for a cigarette he was instructed to read a positive self-statement and then reward himself with a cigarette. A "wild card" alternated with the other three and required a spontaneous, original positive self-thought.

The man soon began to generate complimentary self-thoughts without prior cueing and in the absence of smoking stimuli. Gradual fading of the
treatment techniques allowed the young man to resume a normal and adaptive life without lengthy hospitalization or extended therapy. Several other studies have shown that individual programming strategies can be effective in modifying both private and observable behavior patterns.

An expanding body of literature is currently adding to our knowledge of self-control phenomena. New trends in therapy include the use of imaginal consequences (e.g., imaginary rewards and punishments), the self-control of thoughts and feelings, and the use of self-instructions. These trends point up an intriguing aspect of the area of self-control—that it may well provide grounds for a rapprochement between behavioristic and humanistic approaches to psychology (Thoresen, 1972). Research involving behavioral analyses of self-esteem, for example, seems to have incorporated both the empirical rationale and the personal relevance that have traditionally characterized two disparate factions of psychology. The term "behavioral humanism" would seem to characterize many self-control endeavors. Continuing research will enlarge our understanding of how behavioral principles can be applied to self-control. To this end, self-control researchers might appropriately adopt the slogan "Power to the Person!"
References


