

THE EFFECT OF THE ABSENCE OF CLOSE SUPERVISION  
ON THE USE OF RESPONSE COST IN A  
PRISON TOKEN ECONOMY<sup>1</sup>

JOHN E. BASSETT AND EDWARD B. BLANCHARD

SHELBY COUNTY PENAL FARM AND UNIVERSITY OF TENNESSEE

A naturally occurring experiment, in which direct supervision of a token economy in a penal system was removed and re-instated, is reported. A retrospective analysis revealed that in the absence of close supervision the use of response cost rose dramatically, both in terms of categories of behaviors for which response costs were levied and in the frequency of their use. The return of direct supervision led to a decreased use and an end to the growth of categories of behaviors punished.

DESCRIPTORS: token economy, response cost, prison, supervision, absence, paraprofessionals, adult inmates

Penal institutions have apparently been one of the last places to introduce and systematically apply the principles of applied behavior analysis, as evidenced by the lack of professional literature on this topic (Bishop and Blanchard, 1971; Kennedy, 1976). Further, when behavior-modification programs have been instituted for the control and/or rehabilitation of prison inmates, their introduction has tended to generate more controversy than similar applications in other areas. (Kennedy, 1976; Geller, Note 1). Most of the controversy has centered around the criticism that the use of behavior-modification programs in prisons is subject to abuse by the prison administration, especially if the program director is not present to provide ongoing supervision (Saunders, quoted in Trotter, 1974).

In contrast to the view of Tharp and Wetzell (1969), who suggested that behavior-modification programs in the natural environment can be conducted by "long-distance consultation" (p. 118), Saunders contends that one of the prob-

lems with the Contingency Management Program in Virginia (Johnson and Geller, 1974) was the lack of on-site, full-time supervision. In fact, Saunders (Note 2) alleged that the only program of which he was aware that provided adequate on-site supervision was the Cohen and Filipczak (1971) program at the National Training School in Washington, D. C.

The present study describes a naturally occurring quasi-experiment in which direct, on-site supervision of a behavioral management program in a penal setting was removed and then re-instated. Attention is particularly directed to the effects these changes had on the staff's recorded use of response-cost procedures.

## METHOD

### *Subjects*

Inmates of the Shelby County (Tennessee) Penal Farm, enrolled in the Self-Management Program from October 1, 1973, through August 31, 1974, served as subjects. (See Bassett, Blanchard, and Koshland, 1975, for a more detailed description of this program.) The number of subjects varied from day to day as inmates were admitted to the program or released, either because of completing their sentences, voluntarily withdrawing, or failing to adhere to the program. Because of the fluctuation in enroll-

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ment, the composition of the group by age, race, length of sentence also varied.

The number of participants varied from seven to 19, with a mean of 13; a total of 39 men took part in the study. The age range was 18 to 34 yr, with a mean of 22.5. The racial composition varied from 23 to 50% white with a mean of 33%. Length of sentences ranged from nine to 60 months, with a mean of 14.2, and the types of offenses were typical of those for which men were incarcerated at the Shelby County Penal Farm in Memphis.

The Self-Management Program had 11 staff members, nine of whom were male behavioral technician-counsellors aged from 21 to 45 yr. All held a bachelor's degree, although only one was in psychology and none had experience in a behavioral system. An in-service training program of about 25 hr was conducted with these staff members on the principles and application of applied behavioral analysis. These sessions were supervised by a master's-level psychologist and consisted of programmed instructional units with pre- and posttests, as well as supplemental readings and a weekly discussion group.

#### *Procedure*

The temporal sequence of events in this study was (a) Phase 1, during which the first author was present as a full-time director and the second author served as program consultant some two days per month; (b) Phase 2, when the first author took a leave of absence and consulted one or two days per month while the second author continued his consulting role; and (c) Phase 3, during which the first author returned as full-time program director, initiated an analysis of the program, and decided, in collaboration with the second author, to terminate the program.

#### *Program Data Collection and Analysis*

Before his departure, the first author designed and instituted the use of a detailed con-

tingent point-card system (Bassett, Note 3). Each day an inmate was issued, and carried on his person, a point card on which the inmate's earnings, spendings, and response costs were recorded as well as the daily totals of each of these categories and his cumulative savings balance. Entries were made on the point card immediately following a targeted behavioral transaction by either the staff or, in some cases, the inmate.

To obtain the present data, all response-cost entries on the daily point cards were transcribed to week-by-week tally sheets and then collapsed into 44 different response-cost categories by the first author. An independent reliability check of the classification procedure was obtained by drawing two months of daily point cards at random and having a second rater classify the entries into one of the 44 categories. Interrater agreement for this procedure was 96%.

## RESULTS AND DISCUSSION

Figure 1 shows the total number of different behavioral categories for which response costs were recorded as well as the month-by-month frequency of response costs imposed. It can be seen that during the initial period of on-site supervision, there were five response-cost categories built into the system by the Self-Management Program director, and the recorded use of these categories by the behavioral technicians averaged fewer than one per day. Concurrent with the removal of on-site supervision, there was a gradual increase both in the number of new response categories added to the system by the various behavioral technicians and in the frequency with which all these categories were used. As a result, the Self-Management Program environment shifted from one in which there was an emphasis on reinforcing positive behavior to one in which the emphasis was on punishing misbehavior. With the return of full-time, on-site supervision there were no records of new response-cost categories introduced into the program. It took some three months for

the program to return to the baseline level of response-cost use.

The original program, as designed and operated during the director's initial period of on-site supervision, called for the contingent awarding of points to the inmate-clients upon their satisfactorily completing any of the various target behaviors. During the director's absence, the behavioral technicians not only withheld the awarding of contingent points whenever an inmate failed to reach the criteria on a target behavior, but also levied a response cost. Further increasing the punitiveness of the environment was the fact that the behavioral technicians continually increased the magnitude of response

costs when they noted that the inmates were not responding to their "double-sanction" procedures. An analysis of these data indicated that this was a fairly uniform phenomenon among the behavioral technicians, in that seven of the nine levied 96% of the response costs recorded. Moreover, the distribution of these recorded response costs was quite evenly divided among these seven behavioral technicians.

Moreover, there were two other rather poignant indices of how punitive the system eventually became during the director's absence. First, the escalation in magnitude of the recorded response costs was literally by quantum leaps; second, the size of the response cost recorded for the same behavior varied among the behavioral technicians. For example, for a certain behavior, one of the technicians would initiate a response-cost category and levy a fine that ranged anywhere from 10 to 25 points on one day and then assess a fine of 250 to 1000 points for the same "offense" a day or two later. The inmates, of course, had no way of predicting what the contingency would be from hour to hour for *any* behavior(s). Further aggravating the situation was the fact that the other behavioral technicians might not levy response costs for these same behaviors or that they might impose different size fines. The data clearly indicate that each behavioral technician had his own perception of what constituted unacceptable behaviors. While the present data admittedly reflect *recorded* response-cost entries, the retrospective analysis of the point cards revealed a close relationship between point earnings and spendings. Moreover, the authors have reason to believe that the increase in response-cost entries on the point cards did, in fact, correspond with reductions in the reinforcement provided the inmates.

Finally, perhaps the most compelling evidence for the significant growth in the program's aversiveness during the director's absence was the increase in both the number of inmates who voluntarily quit the program and the number who received disciplinary infrac-

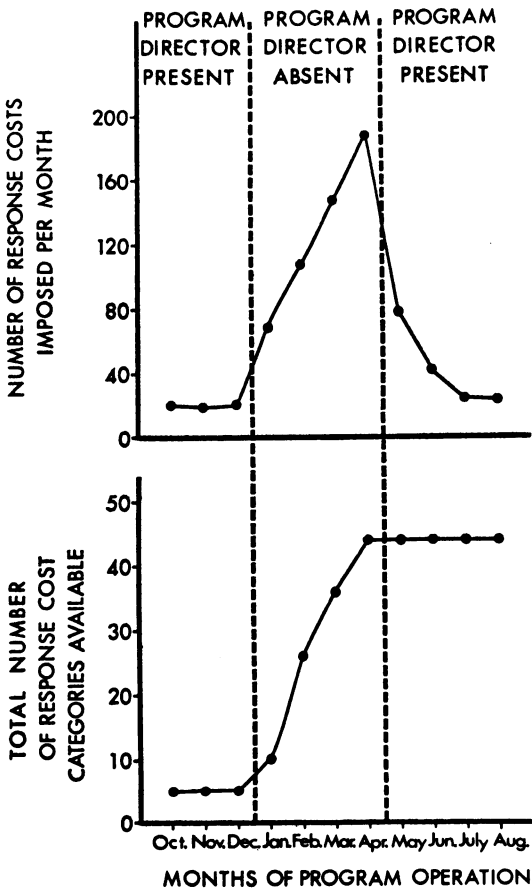


Fig. 1. Number of fines recorded per month and total number of categories of behavior for which fines were recorded as a function of program director presence.

tion reports from the program staff. Table 1 shows both the ratio of

$$\frac{\text{inmates quitting the program}}{\text{inmates enrolled}}$$

and the ratio of

$$\frac{\text{disciplinary infraction reports}}{\text{inmate days}} \times 1000$$

over the three phases of the program. These data strongly suggest that the increased use of response cost was perceived by the inmates as punitive and aversive. The rate at which inmates quit the program during this phase was 6.1 and 12.6 times as great as when the director was present. Similarly, the frequency with which staff members wrote disciplinary infraction reports on the inmates was 7.8 and 11.2 times greater than during the same two periods in which the director was on site. Moreover, all but one of the disciplinary infraction reports written by the staff during the director's absence dealt with behaviors targeted by program policy. Specifically, the occurrence of these behaviors should have occasioned the withholding of contingent points, rather than a "write-up" that became part of the inmate's permanent institutional record.

The present data support the general thesis of various critics of behavior modification in prisons, such as Saunders, that there is a distinct possibility of abuse in operating behavioral systems that do not provide adequate monitoring

procedures. Despite the cautious design and well-intended goals of the Self-Management Program, the data indicate that these programs can go astray, as evidenced by the deterioration and abuses that occurred during the director's absence. It seems apparent that the difficulties are not inherent in the empirical methodology of behavioral principles, as may be inferred from Saunders' analysis, but rather in their (mis)application. Moreover, in light of the absence of any demonstrably effective alternative rehabilitation strategy, it would appear to be a premature judgement to conclude, as Saunders (1974) did, that it is doubtful that behavior-modification programs can ever work in prisons. Quite the contrary, in our view close, on-site supervision of *all* prison rehabilitation programs within an atmosphere of cooperation between treatment personnel and prison administrators is needed. Then, and only then, will applied behavior analysis be given its proper scientific trial in the prison arena.

The historical account described in this study is not offered as a unique or atypical case study, but as a verification and advised warning that a mismanaged behavioral program may evolve naturally into a response-cost system. This phenomenon has been observed by the second author in another penal setting which, like the Self-Management Program, was also initially designed and operated as a token economy.

Finally, it may be noted that the deterioration from an intentionally reinforcing environment

Table 1  
Correspondence between Program Supervision and Measures of Program Aversiveness

Aversiveness Measures	Program Phase		
	Director Present (10) <sup>a</sup>	Director Absent (4½)	Director Returned (21½)
$\frac{\text{Inmates Quit}}{\text{Inmates Enrolled}}$	= 0.035	0.214	0.017
$\frac{\text{DIR}^b}{\text{Inmate-days}} \times 1000$	= 0.66	5.13	0.46

<sup>a</sup>The numbers in parenthesis represent the phase durations in months.

<sup>b</sup>Disciplinary Infraction Reports.

to a punitive, controlling system is consistent with Skinner's (1971) descriptive analysis of the naturally occurring contingencies operating within society in general. The long road toward determining the elusive "active" ingredients of effective rehabilitation can only be lengthened by repeating the errors of society within the prison walls.

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