**ACHIEVEMENT PLACE: TOKEN REINFORCEMENT
PROCEDURES IN A HOME-STYLE REHABILITATION
SETTING FOR "PRE-DELINQUENT" BOYS¹**

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Token reinforcement procedures were designed to modify the behavior of "pre-delinquent" boys residing in a community-based, home-style rehabilitation setting. Points (the tokens) were redeemable for various privileges such as visiting their families, watching TV, and riding bicycles. Points were given by the house-parents contingent upon specified appropriate behavior and taken away for specified inappropriate behavior. The frequencies of aggressive statements and poor grammar decreased while tidiness, punctuality, and amount of homework completed increased. It was concluded that a token reinforcement procedure, entirely dependent upon back-up reinforcers naturally available in a home-style treatment setting, could contribute to an effective and economical rehabilitation program for pre-delinquents.

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Discussion

Alternatives are being sought to the placement of juvenile delinquents in large state reformatories. While reformatories are steadily increasing their standards they still have had less than adequate records of success (Block and Flynn, 1966; Berelson and Steiner, 1964).

The current trend away from the reformatory can be seen in the establishment of small home-style, residential treatment programs by

individual communities. These often involve a pair of house-parents and from three to eight youths. The adjudicated youths live in these homes, attend the local schools, and continue to participate in their communities.

Achievement Place, the program described in this report, is an example of a home-style, community based, treatment facility. The treatment program at Achievement Place employed a "token economy" based on those described by Cohen, Filipczak, and Bis (1965), and Burchard (1967) for institutionalized delinquents; by Ayllon and Azrin (1965) for institutionalized psychotics; and by Wolf, Giles, and Hall (1968), Clark, Lachowicz, and Wolf (1968), and Birnbrauer, Wolf, Kidder, and Tague (1965) for classroom management.

The aim of the present research was to develop and evaluate the effects of a token economy (based on naturally available reinforcers) in a home-style, residential treatment program for "pre-delinquent" boys.

PROGRAM

Subjects

Three boys who had been declared dependent-neglected by the County Court and placed in Achievement Place served as subjects. The boys, all from low-income families, had committed minor offenses ("thefts", "fighting", and "general disruptive behavior") and had histories of "school truancy" and "academic failure".

¹I wish to thank Montrose M. Wolf for his advice and guidance throughout this research. I am also indebted to Elaine Phillips for assistance in conducting the experiments and in preparing this manuscript. This study is based on a thesis submitted to the Department of Human Development in partial fulfillment of the requirements of the Master of Arts degree. The research was partially supported by a grant (HD 03144) from the National Institute of Child Health and Human Development to the Bureau of Child Research and the Department of Human Development, University of Kansas. Reprints may be obtained from the author, 23 East Eleventh St., Lawrence, Kansas 66044.

Jack was 13 yr old. His school records reported an I.Q. of 85 and a second-grade reading level. Concern had been noted regarding a "speech problem", "poor grammar", "aggressiveness", "poor motivation", and "a general lack of cleanliness".

Don was 14 yr old. School records indicated that academically he was performing two years below his grade placement, but that he had a normal I.Q. rating. Reports from school also described this youth as "possessing an inferior attitude", "rejected" by his classmates, and "aggressive".

Tom, who was 12, was described as having an I.Q. of approximately 120. His disruptive behavior in school had resulted in his being placed in the fifth grade, three years below his level of achievement as indicated by the Iowa Basic Skills Test. School records also noted that he was "dangerous to other children" and "openly hostile toward teachers".

Facilities and Routine

The purpose of Achievement Place was to provide a home situation in the community for boys who had been termed pre-delinquents by local juvenile authorities (boys who had committed only minor offenses thus far, but whom the Court felt would probably advance to more serious crimes unless steps were taken to modify their behavior). The author and his wife were the house-parents.

The daily routine was similar to that of many families. The boys arose at 7 A.M. They showered, dressed, and cleaned their bedrooms and bathrooms. After breakfast, some of the boys had kitchen clean-up duties before leaving for school. After school the boys returned home and prepared their homework, after which they could watch TV, play games, or engage in other recreational activities if these privileges had been earned via the token economy. Some boys were assigned kitchen clean-up duties after the evening meal. Bedtime was 9:30 P.M. Trips, athletic events, and jobs, both around the home and away from the home, were scheduled for weekends and school holidays.

The Target Behaviors and the Token Reinforcement System

Target behaviors were selected in social, self-care, and academic areas considered to be important to the youths in their current or

future environment. A further requirement was that a target behavior had to be definable in terms of observable events and measurable with a high degree of inter-observer agreement.

Token reinforcers were used which could be easily and rapidly administered and thus could bridge the delay between the target behavior and the remote back-up reinforcing events. The tokens took the form of points. The boys earned points for specified appropriate behavior and lost points for specified inappropriate behavior. Points were tallied on 3-by-5-in. index cards that the boys always carried with them. Thus, the points could be earned or lost immediately and points later redeemed for the back-up reinforcers.

Items and events which were naturally available in the home and which appeared to be important to the boys were the back-up reinforcers. Access to these privileges was obtained on a weekly basis. At the end of each week the boys could trade the points they had earned that week for privileges during the next week. Some of the privileges are described in Table 1.

Table 1

Privileges that could be earned each week with points.

<i>Privileges for the Week</i>	<i>Price in Points</i>
Allowance	1000
Bicycle	1000
TV	1000
Games	500
Tools	500
Snacks	1000
Permission to go downtown	1000
Permission to stay up past bedtime	1000
Permission to come home late after school	1000

The prices of the privileges were relatively constant from week to week, although they were occasionally adjusted as their importance appeared to vary. For example, during the winter the price of television was increased.

The economy of the system (the relationship between the total number of points that could be earned and the total cost of all the privileges) was arranged in such a manner that if a youth performed all the tasks expected of him and lost a minimum of points in fines, he

could expect to obtain all the privileges without performing any extra tasks.

There was another set of privileges for "one-of-a-kind" opportunities which had no fixed price but which were instead sold to the highest bidder, auction style. One example was the "car privilege" which entitled the purchaser to his choice of seating in the car for the week. Another auctioned privilege was the opportunity for a boy to obtain authority over the other boys in the execution of some household chore. Each week these managerships were auctioned. The purchaser was made responsible for the maintenance of the basement, the yard, or the bathrooms. Each manager had authority to reward or fine the other boys under his direction for their work at the task. The manager, in turn, earned or lost points as a result of the quality of the job done (as judged by the house-parents).

Most of the behaviors which earned or lost points were formalized and explicit to the extent of being advertised on the bulletin board. Rewards and fines ranged from 10 to 10,000 points. Some of the behaviors and approximate points gained are indicated in Table 2.

A few other contingencies were less formalized but still resulted in point consequences. For example, even though there was no formal

rule the boys would sometimes earn or lose points as a result of their overall manners while guests were in the home.

EXPERIMENT I: AGGRESSIVE STATEMENTS

One behavior pattern that had led to the classification of these youths as deviant juveniles had been the "aggressiveness" they exhibited. The terms "aggression" and "aggressiveness" were noted in school records, psychological test reports, Court notes, and in general comments from individuals who were familiar with the youths. Inquiry into the nature of this "aggressiveness" revealed it to be inferred almost completely from comments the boys emitted such as: "I'll smash that car if it gets in my way" or "I'll kill you". The following experiment describes the house-parents' program to measure and to reduce the aggressive verbal behavior.

PROCEDURES AND RESULTS

"Aggressive" phrases were recorded for the three boys simultaneously for 3 hr each day (one session) while the youths were engaged in woodworking activities in the basement workshop.

Table 2
Behaviors and the Number of Points That They Earned or Lost

<i>Behaviors That Earned Points</i>	<i>Points</i>
1) Watching news on TV or reading the newspaper	300 per day
2) Cleaning and maintaining neatness in one's room	500 per day
3) Keeping one's person neat and clean	500 per day
4) Reading books	5 to 10 per page
5) Aiding house-parents in various household tasks	20 to 1000 per task
6) Doing dishes	500 to 1000 per meal
7) Being well dressed for an evening meal	100 to 500 per meal
8) Performing homework	500 per day
9) Obtaining desirable grades on school report cards	500 to 1000 per grade
10) Turning out lights when not in use	25 per light
<i>Behaviors That Lost Points</i>	<i>Points</i>
1) Failing grades on the report card	500 to 1000 per grade
2) Speaking aggressively	20 to 50 per response
3) Forgetting to wash hands before meals	100 to 300 per meal
4) Arguing	300 per response
5) Disobeying	100 to 1000 per response
6) Being late	10 per min
7) Displaying poor manners	50 to 100 per response
8) Engaging in poor posture	50 to 100 per response
9) Using poor grammar	20 to 50 per response
10) Stealing, lying, or cheating	10,000 per response

Response Definition

Phrases or clauses emitted by the youths were considered to be aggressive statements if they stated or threatened inappropriate destruction or damage to any object, person, or animal. For example, the statement "Be quiet" was not counted as an aggressive response, while "If you don't shut up, I'll kill you" was recorded as an aggressive statement. Over 70% of the aggressive statements were from a list of 19 phrases used repeatedly.

Conditions

Baseline. No contingencies were placed on the youths' responses.

Correction. The boys were told what an aggressive statement was and that such statements were not to be used. A corrective statement by one of the house-parents, such as "That's not the way to talk" or "Stop that kind of talk", was made contingent on the youths' responses. An arbitrary period of approximately 3 to 5 sec was allowed to elapse after a response (or responses) before the corrective comment was made. This meant that a correction did not follow every aggressive statement; sometimes many responses were emitted before a corrective statement was made. The delay interval was employed in order to increase the chance that the boy would have completed his speech episode before correction was administered by the parent.

Fines. A fine of 20 points was made contingent on each response. The fines, like the corrections of the previous condition, were not delivered until approximately 3 to 5 sec had passed without a response. No announcement of this condition was made in advance.

No fines. No fines or corrections were levied on responses. This condition was introduced unannounced. There were occasional threats to reinstate the Fines condition if the rate of responding did not decrease. The threats were worded approximately as follows: "If you boys continue to use that aggressive talk, I will have no other choice but to take away points." These threats were not carried out.

Fines. This condition was identical to the first Fines condition except that fines were 50 points instead of 25. The onset of this condition was announced.

In Fig. 1 it can be seen, by comparing Correction rate with the Baseline rate, that Correction reduced the responding of only one boy, while Fines (20 points per response) produced an immediate and dramatic decline in each youth's aggressive statements. Responses gradually returned when fines were no longer levied but were eliminated when the Fines condition was reinstated. Although the first threat (indicated by the arrows) in the No Fines condition did appear to have a large suppressive effect on the rate of behavior, the last two threats appeared to have much less, possibly due to the fact that the first threat had not been carried out.

Inter-observer agreement about the occurrence of aggressive statements was measured by the use of a second observer during 14 of the 75 sessions. Agreement averaged 92%.

EXPERIMENT II: BATHROOM CLEANING

The youths in the home were assigned a number of household chores, such as aiding in the upkeep of the yard and cleaning their rooms and bathrooms. They originally failed to complete these chores in most instances. Programs involving the point system were designed to increase the boys' contribution to the maintenance of these areas. The cleaning of the bathrooms was studied under a number of conditions.

PROCEDURES AND RESULTS

Sixteen cleaning tasks in the bathroom involving the sinks, stools, floors, *etc.* were scored as accomplished or not accomplished. The bathrooms were scored every day between 12:00 and 12:30 P.M., except in the Baseline condition, where recording was done as soon as the boys reported that the cleaning had been completed (usually before noon). Consequences, if there were any, were levied immediately after inspection.

Response Definition

As stated above, the bathroom cleaning was divided into 16 tasks. In order to obtain a high degree of inter-observer agreement, each task had a specified set of criteria to be met in order to be considered accomplished. For example, one of the 16 tasks was described in the following manner:

Fig. 1. Number of aggressive statements per 3-hr session for each youth under each condition.

Floor and Rugs—The floor has to be clear of all objects greater than $\frac{1}{4}$ by $\frac{1}{4}$ by $\frac{1}{4}$ in. and clear of all visible water. If rugs were removed for cleaning, they should be replaced and centered under the sink within one foot of the wall.

Conditions

Baseline. The Baseline condition consisted of instructing all the boys to clean the bathrooms. No consequences were contingent on their behavior other than the instruction that they clean the bathrooms again, if fewer than four of the tasks had been accomplished.

Manager. During the Manager condition one boy was given the responsibility for cleaning the bathrooms daily. He picked the individual, or individuals, to clean the bathrooms

each day and then paid or fined the workers (20 points lost or gained per task) according to the quality of their work as judged by him. Later, when the bathrooms were checked by the house-parents, the manager received or lost points (20 points per task). The manager earned points only if 75% or more of the tasks were completed. The privilege of being manager was auctioned each week.

Group. The Group condition consisted of all boys being responsible for cleaning the bathrooms and subject to the same fines. There was no manager. The boys were fined when less than 75% of the 16 tasks were completed. The amount of the fines varied from 25 to 300 points.

Manager. This condition was identical to the first Manager condition.

Fig. 2. Number of tasks accomplished per session for each condition. The numerals above the arrows indicate the possible number of points lost or gained for the sessions indicated by the horizontal arrows.

Group. Identical to the first Group condition except that the fines were 100 points.

Manager. Identical to the first and second Manager conditions.

The point contingencies levied by the manager under the Manager condition were more effective than the fines administered by the house-parents under the Group condition, even when the values of the fines under the Group condition were greater than those administered by the manager. The greater effectiveness of the manager condition may have been the result of the differential contingencies for each boy administered by the manager.

Table 3 shows the average number of points lost per boy each day under each condition. Table 3 shows clearly that the managership was not purchased because it was possible to earn a large number of points as a manager.

The manager consistently lost more points than the workers he supervised.

Item by item, inter-observer agreement about the accomplishment of the bathroom cleaning tasks for 20 sessions ranged from 83% to 100% agreement and averaged 97%.

EXPERIMENT III: PUNCTUALITY

One of the boys in particular failed to respond to instructions about promptness. This led to an analysis, over a series of behaviors, of the effectiveness of point contingencies on punctuality.

PROCEDURES AND RESULTS

Promptness was recorded for three separate behaviors:

Table 3
Average Number of Points Lost per Session by Workers and Manager under Each Condition

	Baseline	First Manager	First Group	Second Manager	Second Group	Third Manager
Worker	0	18	73	13	100	0
Manager	0	64	—	20	—	16

- (1) Returning home from school.
- (2) Going to bed.
- (3) Returning home from errands.

Instructions were posted which stated times to be home from school and to retire to their bedrooms at night. When a boy was sent on an errand the time he was due to return was determined before he departed.

The house-parents recorded the number of minutes late or early up to 30 min.

Conditions

Before Fines. If the boy was late from school or an errand, he was reprimanded by one of the house-parents, "Why are you late? You know what time I told you to be here." Tardiness in going to their bedrooms resulted in a reminder every 10 min, "Go to bed; it's past your bedtime." No other contingencies were involved.

Fines. The youths were fined 20 points for every minute that they were late. Other than

being initially informed of the change in contingencies, they were given no reminders or verbal reprimands. The fines were dispensed when the youths returned home or departed for bed. There were no programmed consequences for being early.

Punctuality for school was dealt with first. The termination of the baseline (Before Fines) involving school marked the beginning of the baseline of errands. Completion of the baseline for errands corresponded to initiation of the baseline for bedtime behavior.

The development of Tom's punctuality in all three areas can be seen in Fig. 3. The other two boys had a consistent punctuality problem only at bedtime, and this disappeared at the onset of the Fines condition. The fines were very specific in their effect on the subjects' behavior. Fining tardiness from school had no apparent effect on promptness in returning from errands, and punishing lateness from errands did not seem to produce punctuality at bedtime. Inter-observer agreement

Fig. 3. Number of minutes early or late before and after the application of point contingencies. Each youth's punctuality was measured for school, errands, and bedtime.

was greater than 95% for the 53 checks which occurred throughout the study.

EXPERIMENT IV: HOMEWORK

Failure in school is frequently associated with juvenile delinquency. The school records of the boys sent to Achievement Place all contained accounts of truancy and lack of academic success throughout the boys' school years. One apparently severe deficiency in their school repertoires involved their failure to prepare routine classroom assignments and homework. This experiment compared the effect of several contingencies on preparation of homework tasks.

PROCEDURE AND RESULTS

The study was carried out during the summer, when the youths were not in school. Daily assignments were described on 3-by-5-in. index cards which were available after 8:00 A.M. each morning. The work was scored at 5:00 P.M. of the same day. Each boy was instructed that failure to pick up an assignment card during the day would result in a fine equal to the number of points he would have received if he had completed the assignment. None of the youths ever failed to pick up his assignment card. The house-parents were available to aid in the preparation of the assignments during two periods each day, 10:00 to 11:00 A.M. and 2:00 to 3:00 P.M.

Response Definition

The assignments were pages out of self-teaching workbooks which required approximately 1 hr to complete. The workbooks used were *The Practice Workbook of Arithmetic*, Grade 5 and 6, Treasure Books, Inc., 1107 Broadway, New York, N.Y., and *The Practice Workbook of Reading*, Grades 2 and 3, also by Treasure Books, Inc.

The assignments, usually two or three pages, were divided into five approximately equal parts on the assignment cards. Each part required an accuracy of 75% to be considered complete. The boys received one-fifth of the maximum number of points, money, or time obtainable for each assignment completed, as explained below.

Conditions

Money. Under this condition each boy could earn 25 cents for each day's assignment

if he had completed the assignment with less than 25% errors. The youths had the choice of receiving the money daily or at the end of the week. All three chose the latter, and the amount of money they earned was accumulated on an index card carried by each boy.

Weekly late-time. The boys had the opportunity to earn up to 1 hr of late-time per assignment. Late-time could be spent on the weekends to stay up beyond the youths' normal bedtime (9:30 P.M.). A maximum of 7 hr could be spent by a boy during a weekend and the boys could share their late-time with each other.

Daily late-time. Throughout this condition the boys could use the late-time the same day earned or save it for the weekend.

Points. The points phase allowed the youths to earn 500 points per assignment.

Money. This was the same as the first Money condition.

Points. This was the same as the first Points condition.

Figure 4 shows that the Points condition was by far the most effective in producing homework preparation. Daily Late-Time compared favorably to other conditions. Money, at the one value tested, yielded relatively poor results.

It should be noted that no effort was made to equate the points with the money and it seemed quite likely that at some higher value money would have been as effective as points. It was thought that the low rate of behavior in the first Money condition might have been due to the youths' lack of experience in using money. Thus, after the first condition, an allowance of \$1.50 was given each week until the second Money condition (a period of seven weeks). During this interim the youths spent their money and appeared to understand what could be obtained with money. However, the reinstatement of the Money condition produced no better performance than the original Money condition.

Observer agreement in scoring the assignments was measured for four separate sessions, one in each of the first four conditions. The agreement on the proportion of the assignment completed was 100%.

EXPERIMENT V: "AIN'T"

Poor grammar was an obvious problem for one of the boys. The present study describes

Fig. 4. Percent of homework assignment completed by each boy under each of several conditions.

a program designed to correct a grammatical problem both with and without manipulation of the point system.

PROCEDURE AND RESULTS

The verbal response "ain't" was recorded for one boy for 3 hr (one session) each day. The 3 hr were not consecutive, nor the time of day consistent. Responses were registered on a silent counter which appeared to be unnoticed by the youth.

Response Definition

It was necessary to differentiate between "ain't" used in normal conversation and the "ain'ts" used in discussions about the incorrect responses. Thus, "ain'ts" used as verbs were considered responses, while "ain'ts" employed as nouns or other parts of speech were not recorded.

Conditions

Baseline. No contingencies were placed on the youth's responses.

Correction. The correction procedure consisted of either house-parent's interrupting the boy's conversation, informing him of his error, suggesting an appropriate alternative, and requiring the youth to repeat the sentence using the correction. The house-parents corrected the mistake in a matter-of-fact manner. The subject's peers were also encouraged to assist in informing the boy of his errors.

Correction and Fines. This condition was identical to the previous phase except that a 20-point fine was levied on each response heard throughout the day. The "ain'ts" from each 3-hr session were recorded as above. Also, the total number of responses fined for the entire day was available by tallying the entries noted on the point card. Again, the other boys were told to inform the house-parents of any responses which occurred when they were not present. These responses were also fined.

Post Check. One month after the final session of the Correction and Fine condition the response was again recorded for five days (3 hr each day).

Fig. 5. Number of responses per day (3-hr session) for one youth under: 1) no consequences (baseline); 2) correction by the house-parents and other boys; and 3) correction and a 20-point fine for each response. Post checks of the behavior were taken 30 days later. The dashed line indicates the total number of responses for the entire day.

As can be seen in Fig. 5, no effect was evident from the Correction condition but when the 20-point fine was made contingent on the youth's behavior, there was an immediate and consistent decline in the frequency of the inappropriate behavior, until, by the end of the second week, the response, "ain't", was eliminated. It was the impression of the house-parents that this effect was not accompanied by any noticeable decline in the youth's overall rate of speech. The dashed line in Fig. 5 indicates the course of the decline in "ain'ts" recorded throughout each day during this condition.

The Post Check condition, 30 days after the elimination of "ain'ts", revealed no trace of the response.

Observer reliability was recorded for over one-fourth of the sessions. The observer recorded data simultaneously with the primary recorder, but recording was independent. Agreement was never less than 93%, and the overall average was 99%.

DISCUSSION

The token economy (point system), which was designed to deal with a variety of social, self-care, and academic behaviors in the home-style treatment program for pre-delinquent boys, proved to be practicable, economical, and effective. The points seemed almost as convenient to administer as verbal consequences. In the series of experiments presented, the house-parents removed or presented points by requesting the youth's point card and recording the consequence. Subsequent to these studies, the youths themselves have performed the recording tasks equally well. The house-parents have simply instructed the boys to "take off" or "give yourself" points. Cheating has not appeared to be a problem, possibly because of the extremely heavy fine if caught. The privileges for which the points were traded cost nothing, since they were all naturally available in the home as they would be in almost any middle-class home. Since the

privileges could be purchased only for a week at a time, they were available over and over again as reinforcers, thus providing an almost unending supply.

The programs involving the point system successfully modified aggressive verbal behavior, bathroom tidiness, punctuality, homework preparation, and poor grammar. The research goals remain of expanding the program to include more boys and more behaviors as well as developing means of transferring the newly established repertoires to the natural contingencies of reinforcement. If these goals can be achieved, token reinforcement procedures should become a basic feature of home-style treatment programs for delinquents.

REFERENCES

- Ayllon, T. and Azrin, N. H. The measurement and reinforcement of behavior of psychotics. *Journal of the Experimental Analysis of Behavior*, 1965, 2, 357-383.
- Berelson, B. and Steiner, G. A. *Human behavior: an inventory of scientific findings*. New York: Harcourt, Brace & World, Inc., 1964.
- Birnbrauer, J. S., Wolf, M. M., Kidder, J. D., and Tague, C. E. Classroom behavior of retarded pupils with token reinforcement. *Journal of Experimental Child Psychology*, 1965, 2, 219-235.
- Bloch, H. A. and Flynn, F. T. *Delinquency: the juvenile offender in America today*. New York: Random House, 1956.
- Burchard, J. D. Systematic socialization: a programmed environment for the habilitation of anti-social retardates. *The Psychological Record*, 1967, 17, 641-476.
- Burchard, J. D. and Tyler, V. O. The modification of delinquent behavior through operant conditioning. *Behavior Research and Therapy*, 1965, 2, 245-250.
- Clark, M., Lachowicz, J., and Wolf, M. M. A pilot basic education program for school dropouts incorporating a token reinforcement system. *Behavior Research and Therapy*, 1968, 6, 183-188.
- Cohen, A. K. and Short, J. F. Juvenile delinquency. In R. E. Melton and R. A. Nisbet (Eds.), *Contemporary social problems*. New York: Harcourt, Brace & World, 1961. Pp. 77-126.
- Cohen, H. L., Filipczak, J. A., and Bis, J. S. Case project: contingencies application for special education. Progrss Report, U.S. Department of Health, Education, and Welfare, 1965.
- Glueck, S. and Glueck, E. *Unraveling juvenile delinquency*. Cambridge, Mass.: Harvard University Press, 1950.
- McCord, W., McCord, J., and Zola, I. K. *Origins of crimes: a new evaluation of the Cambridge-Somerville youth study*. New York: Columbia University Press, 1959.
- Powers, E. and Witmer, H. *An experiment in prevention of delinquency: the Cambridge-Somerville youth study*. New York: Columbia University Press, 1951.
- Schwitzgebel, R. L. *Street corner research: an experimental approach to juvenile delinquency*. Cambridge, Mass.: Harvard University Press, 1964.
- Slack, C. W. Experimenter-subject psychology: a new method of introducing intensive office treatment for unreachable cases. *Mental Hygiene*, 1960, 44, 238-256.
- Staats, A. W. and Butterfield, W. H. Treatment of non-reading in a culturally deprived juvenile delinquent: an application of reinforcement principles. *Child Development*, 1965, 36, 925-942.
- Thorne, G. L., Tharp, R. G., and Wetzel, R. J. Behavior modification techniques: new tools for probation officers. *Federal Probation*, 1967, June.
- Wetzel, R. Use of behavioral techniques in a case of compulsive stealing. *Journal of Consulting Psychology*, 1966, 30, 367-374.
- Wolf, M. M., Giles, D. J., and Hall, R. B. Experiments with token reinforcement in a remedial classroom. *Behavior Research and Therapy*, 1968, 6, 51-64.

Received 28 March 1968.