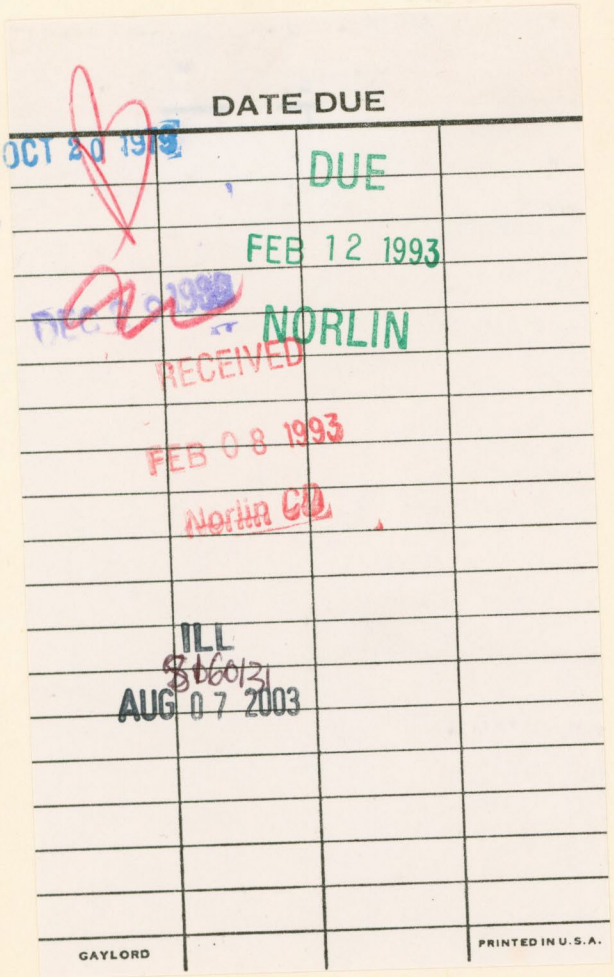
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A COMPARISON OF PROBATION OFFICERS AND VOLUNTEERS

by

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A thesis submitted to the Faculty of the Graduate School of the University of Colorado in partial fulfillment of the requirements for the degree of

Doctor of Philosophy

Department of Sociology

1972

This thesis for the Doctor of Philosophy Degree by

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Department of

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Date April 25, 1972

ABSTRACT

Howell, James Carlton (Ph.D., Sociology)

A Comparison of Probation Officers and Volunteers

Thesis directed by Professor Delbert S. Elliott

The study reported herein is a comparison of the effectiveness of probation officers and volunteer adults as counselors of juveniles on probation. The study population consists of 80 male juveniles. Forty juveniles counseled by volunteers were precision matched with 40 probationers counseled by probation officers. Subjects were matched in pairs on the basis of sex, age, socioeconomic status, offense history, ethnicity, and length of time in the study. An attempt is made to account theoretically for the effects of the two methods of counseling on the attitudes and behavior of the juveniles under study. The theoretical framework used was derived from the notions of George C. Homans.

The study design is a longitudinal one since data were collected for the entire study period of the youths' probation at 3-months intervals.

Two of Homans' hypotheses are tested. In the first one

he suggests that if the frequency of interaction increases between two or more persons, their liking of each other will likewise increase, and vice versa -- provided authoritarianism does not enter the relationship. The second of his hypotheses tested herein suggests that if the degree of liking and interaction between two or more persons increases, the more alike their activities (operationalized as attitudes and behavior) tend to become, and vice versa. As is the case in the first hypothesis, this theoretical relationship does not hold if authoritarianism intervenes. A third hypothesis tested is our general research question: whether probation officers or volunteers are more effective counselors.

The data suggested very weak support for Homans' two hypotheses. The relationships between counselor and probationer liking of each other and frequency of interaction were found to be extremely weak. Nor were increases or gains in the two variables found to be strongly correlated through residualized gain score analysis. In fact, the probationers perceived their counselors as liking them less when interactions were more frequent. Authoritarianism did intervene the relationship between liking and interaction, although not in the expected direction. The stronger positive (although not significant) correlations were observed when authoritarianism was high rather than low.

Regarding Homans' second hypothesis, gain score analysis

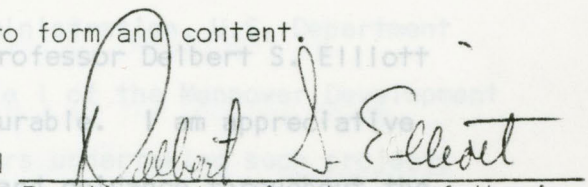
revealed stronger correlations between gains in liking and gains in the direction of improvement in probationer attitudes and behavior than between interaction and attitudes and behavior. (Ten measures of changes in attitudes and behavior [the dependent variables] were made: anomy, family adjustment as perceived by probationers and counselors, social adjustment with peers and adult authority as perceived by probationers and counselors, academic adjustment, grade point average, police contacts, and delinquent acts.) Authoritarianism again intervened in an unexpected direction. The strongest positive correlations between gains in liking and interaction and the dependent variables appeared when authoritarianism was high.

Probationers counseled by volunteers appeared to have qualitatively better relationships with their counselors than did probationers counseled by probation officers. At the outset volunteer-counseled probationers liked their counselors significantly more, perceived their counselors as liking them significantly more, and perceived their counselors as being less authoritarian than did probation officer-counseled probationers. However, these differences tended to disappear through time -- that is, in relationships of longer than 6 or 9 months duration.

We observed no significant differences between the two groups on any of the dependent variables at either the first or last measurement intervals. Examination of residualized gain scores between T_I and T_N revealed that the volunteer-counseled

group made slightly higher gains or improvements between the two intervals. However, these differences were not of sufficient magnitude to eliminate the possibility of their having been produced by chance alone.

This abstract is approved as to form and content.

Signed 

Faculty member in charge of thesis

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CHAPTER ONE

STATEMENT OF THE PROBLEM

Scrutiny of the courts' attempts to rehabilitate problem youth has been persistent and multi-faceted. Legal procedures, differential selection of offenders, treatment efforts, and decision-making processes within the court structure have been subjected to much discussion, empirical investigation, and criticism.[1] Of primary concern here is the treatment programs provided by the courts for youths who are adjudicated children in need of supervision (CHINS) and juvenile delinquents. Numerous suggestions have been offered which, if adopted, presumably would result in increased effectiveness of rehabilitation programs. The following changes are frequently suggested: greater emphasis on diagnostic techniques, reduction in official "labeling," increased staff, differential treatment, community-based efforts, more highly qualified staff, implementation of research and evaluation, and the use of non-professional staff.

---

[1] See Chwast, 1961; Brown, 1968; Cicourel, 1968; Clark and Wenninger, 1962; Cohen, 1963; Downes, 1969; Eaton and Polk, 1961; Erikson and Empey, 1963; Garabedian, 1964; Goldman, 1963; Ketcham and Paulsen, 1967; Lohman, et al., 1965; Matza, 1964; Neigher, 1967; Nye, 1958; Nye, Short and Olson, 1958; Porterfield, 1946; Reiss and Rhodes, 1961;

The principal concern of the research reported here is with one of these innovations: the use of volunteer citizens as counselors of juvenile probationers.[2]

The popularity of court-related volunteer workers has grown so rapidly in the past decade that the phenomenon has been labeled the "court volunteer movement" (Scheier, 1971: passim). The National Information Center on Volunteers in Courts estimated in late 1970 (Scheier and Allen, 1970:1) that

> ...30-35 per cent of all juvenile courts in this country have some sort of volunteer program, with an additional 15-20 per cent seriously considering or actually planning one. Close-in projections suggest that the percentage of juvenile volunteer courts could easily climb to 60-75 per cent by 1972.

Empirical Findings on Volunteer Counselors

Despite the widespread use of volunteers in correctional settings, little empirical work has been done with the aim of establishing the extent to which the volunteer-offender relationship is productive of successful social adjustment on the part of the offender.

Rosenheim, 1962; Scarpitti and Stephenson, 1968; Sellin and Wolfgang, 1964; Silver, 1966; Short and Nye, 1957-58; Stephenson and Scarpitti, 1967; Tappan, 1946, 1958; Weeks, 1958; and Witmer and Tufts, 1954.

[2]The different uses of volunteer talent throughout correctional settings range from such menial tasks as record-keeping, to caseload work, to administrative positions. This research is focused on the use of volunteers as counselors of juvenile probationers.

In this section research efforts relevant to the outcomes of volunteer-offender relationships are reviewed. As already indicated, volunteer staff are utilized in varied correctional settings. The research reviewed here is inclusive in scope -- covering evaluation of volunteer staff in institutional, misdemeanant, and probationary settings for both adults and juveniles. The intent is to survey both the nature and extent of systematic research on volunteers as well as to draw general conclusions as to the effectiveness of this resource in corrections. Only the most definitive research efforts are reviewed here.

Royal Oak, Michigan. The earliest study on volunteer counselors, the Royal Oak, Michigan project (Koschital, n.d.), was undertaken in 1965. Comparisons were made between a population (92) of adult probationers in the Royal Oak Municipal Court, a like population (82) in a court of comparable size in a similar city, and a "control" sample of eleventh grade students.[3]

The two court populations consisted of predominantly lower-middle class white males aged 17-25. All adult misdemeanants sentenced over a 6-months period in both courts were included in the study. Measurements were obtained at the beginning of probation and at the end of an 18-months period. The research question was whether or not Royal Oak's "intensive" probation program, as compared with "routine" probation in the comparison court, makes a difference in the rehabilitation of

[3]Discussion of the control sample will be omitted here.

adult misdemeanants. In order to make this determination a battery of psychological tests designed to evaluate aggressiveness, type and degree of hostility, and general social and anti-social attitudes was administered upon inclusion in the study and at the end of the study period. Recidivism ("...a conviction of a new crime during the study period resulting in fine, jail term..." [p. 34]) rates were calculated for both groups.

Striking differences appear to have existed in the treatment programs of the two courts. The Royal Oak Court offered an array of specialized treatment programs (compulsory Alcoholics Anonymous for those who had been charged with an alcohol-related offense, intensive marriage counseling, work detail, psychological-psychiatric services, alcohol-drug information, vocational rehabilitation, drivers school, and others). Participation in such programs as these was based on pre-sentence evaluation. "Cases with a history of anti-social behavior or who otherwise evidenced emotional disturbance were assigned to treatment programs which involved the professional in addition to the volunteer" (p. 33). Twenty-three per cent of the Royal Oak group were exposed only to professional services; 34 per cent were exposed to both professional and volunteer counseling; and 43 per cent were treated exclusively by community volunteers.

In the comparison court, one probation officer supervised about 250 cases. No specialized treatment programs were provided and monthly contacts were made by the probation officer -- mostly by phone or letter.

The results seemed pleasantly surprising to the Royal Oak research staff since their group, as determined by psychological instruments, appeared to be more anti-social and hostile than the comparison group at the outset. Yet their group evidenced marked attitude improvement over the 18-month study period, while no significant change occurred in the comparison court group. The Royal Oak group likewise realized a significantly lower rate of recidivism: 23 per cent as compared with 46 per cent in the comparison court.

The effects of volunteer counseling in the Royal Oak Court were obscured due to the fact that volunteer-counseled probationers were exposed to several treatment techniques. Although 48 per cent of the Royal Oak group were "sponsored" by a community volunteer, 71 per cent of the entire group were subjected to "work detail," 51 per cent had at least one contact monthly with the "chief counselor," 19 per cent were given drivers training, and 17 per cent were given group therapy. Actually, none of the probationers were exclusively supervised by a community volunteer, due to their differential exposure to the above programs. The extent of volunteer supervised cases' exposure to other treatment programs is not clearly specified in the report. Therefore, a comparison of volunteer-supervised and non-volunteer-supervised offenders within the Royal Oak group was not feasible, although Koschital attempted to do so. He declares that 44 per cent of the Royal Oak group were treated with volunteer services only (p. 34) and reported a rate of recidivism for this group of 7.5 per cent. Since 71 per cent

of the study population participated in work detail,[4] 44 per cent could not have received only volunteer services. Supervisors of the work crew were not volunteers.

That this sub-group which was supervised or counseled by volunteers had a low rate of recidivism should have come as no surprise since it consisted of low risk cases who were diverted from programs manned by professional staff into volunteer sponsorship. Koschital indicates that this was the case: "Pre-sentence evaluation can serve most effectively as a screening device to eliminate the high risk cases and offer substitutive rehabilitative procedures" (p. 38).

Koschital is primarily concerned with demonstrating that an intensive probation rehabilitation program, "based on volunteer services," can be effective. His report reveals the nature of Royal Oak's "volunteer" staff. In various treatment programs, the volunteer staff consisted of such professionals as doctors, psychiatrists, and therapists. Many of these professionals offered their services without a fee on a part-time basis. Thus most of the volunteer staff in the Royal Oak project apparently were not non-professional volunteers. A clearer distinction needed to be made between professional and non-professional volunteers.

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[4] "This program offers worthy defendants the opportunity to petition the Court for assignment to the city work program [in which] the defendant pays a set charge for the 'privilege' of earning a dismissal [of his case, without a permanent record] by working for the city in a supervised work crew" (p. 12).

The strongest conclusion that can be drawn from this study is that Royal Oak's intensive treatment program was found to be more productive of successful probation than a court program without intensive treatment programs. Even this conclusion must be a tentative one because no attempt was made to match the two study populations on factors other than ethnicity, sex, and age range (17-25). Thus the two study populations cannot be assumed to have been comparable.

Boulder, Colorado. Leonard Pinto and his associates (1968) conducted a study of the juvenile probationary programs in the District Court of Boulder, Colorado. Comparisons were made among the several treatment groups: APO-supervised offenders (those probationers assigned to college students who were given partial course credit for their volunteer work), DPO-supervised cases (probationers supervised by adult community volunteers,) Tutored offenders (those probationers with school difficulties who were tutored mostly by college student volunteers about two nights per week), Group discussion members (probationers who met weekly with adult community volunteers to discuss feelings and problems) and Non-program probationers (offenders believed by the staff to need minimal supervision and therefore supervised by paid probation officers outside the volunteer-manned programs). The general research problem was that of determining the relative effectiveness of these different methods of treatment.

A population (239) of juveniles on probation between February 1966 and April 1967 was studied along with staff members and outside agency personnel, by means of field observations, interviews, self-administered questionnaires, and registration materials. The questionnaire, administered at both the beginning and termination of probation[5] was the High School Personality Questionnaire (HSPQ) which is designed to measure selected personality traits of respondents along 14 independent dimensions, each conceived to form a continuum (for example, from less intelligent thinking, to more intelligent, abstract-thinking, bright). Court and police records were examined for data on the study subjects' probationary experience and for arrests both before (pre-petition filing) and during their probationary experience. A third major source of data was staff members' perceptions of the seriousness of cases, which were obtained after program assignment. Finally, probationers' attitudes toward both volunteer and non-volunteer staff members also were analyzed.

The results of the personality questionnaire[6] indicated that those probationers assigned to volunteer-manned programs consistently had higher scores than did non-volunteer-supervised cases on the delinquency-proneness index, both before and after the probationary experience. (The offenders assigned to volunteers

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[5]Pre- and post-measurements were obtained on only 104 of the 239 cases.

[6]Only the "delinquency-proneness" index is considered here.

were perceived by the staff to be the most difficult cases, based on the seriousness of their pre-probation offenses.) Those exposed to the DPO program (adult volunteers) and the Group Discussion program (mostly adult volunteers) appeared to have more delinquency-proneness-linked personality traits before probation and these two groups also realized the most striking reduction in delinquency-proneness. Relatively little change was found to have occurred among youngsters assigned to APO's or the tutor program, and delinquency-proneness appeared to have increased among those not assigned to any volunteer-manned program.

Two methods of analysis were employed in the handling of arrest data. Mean number of arrests both prior to and during probation were calculated. These were then translated into time-adjusted arrest rates. In all instances the means and rates for particular groups were compared with the means and rates for the total population. Analyses of seriousness of offenses[7] for both time intervals also were made for all groups.

Non-volunteer-supervised probationers had a smaller mean number of arrests prior to probation and also during the probationary period; however, when these data were time-adjusted, this group had a rate similar to the total population both before and during probation. In comparison with the total population,

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[7] The classification used was: adult serious, adult non-serious, and adolescent.

this non-volunteer-supervised group had a similar period of time to commit offenses prior to probation and were on probation for a shorter period of time than the total population.) The authors noted that members of this group were perceived by paid court staff to be the least difficult cases to handle.

Comparison of the arrest records of the various volunteer-supervised groups with the total population revealed that the DPO and APO program members realized the greatest reduction of arrests from pre-probation levels and that the most marked reduction in time-adjusted rates was found among DPO-supervised probationers. Staff members were least optimistic about the chances of this group to avoid future trouble. (This particular judgment apparently was made near the end of the probationary period.)

Official records data on other aspects of the probationary experience revealed that probationers supervised by volunteers realized a greater likelihood than did probation officer-supervised probationers of being placed in temporary custody (detention) and also of having modifications made in their probationary rules (including both relaxation and tightening). Examination of the records also indicated that 6 per cent of volunteer-supervised cases were incarcerated in correctional institutions as compared with 9 per cent of probation officer-supervised offenders.

In general, the paid staff initially perceived those probationers assigned to volunteer-manned programs as being more difficult cases than those supervised by regular probation

officers. They likewise saw program cases as making as much (or more) progress while on probation. Specifically, staff members perceived that DPO-supervised cases made the most progress.

A partially random sample of probationers (including a small number not in the study population reported above) was interviewed in order to obtain their view of volunteers and probation officers. Eighty per cent of the sample were still on probation at the time of the interview. The general conclusion drawn from interviews was that both probation officers and volunteers received very positive ratings. In comparison with volunteers who were APO's and tutors, probation officers were perceived as being more sophisticated and controlling. The probationers' indications that they liked either a probation officer or a volunteer appeared to be correlated positively with the degree of interest which the adult showed in them. The authors suggest that the differing views of staff by probationers might have been a function of differential program selection.

Pinto and his associates indicate that the goals which fostered this Demonstration Project were two-fold: (1) reduction of institutionalization rates, and (2) individualized justice -- as evidenced by increased use of probation revocations, the use of temporary custody (detention), and restrictions, extensions and modifications in the rules of probation. Thus the goal of the Demonstration Project was to show that the above goals could be achieved through the use of unpaid, non-professional volunteers as counselors, tutors and discussion leaders.

Pinto notes that there was a drop in the institutionalization rate in the Boulder Juvenile Court between 1966 and 1967 (from 12 per cent to 4 per cent annually). He concludes that the research results indicate the appearance of "...a linkage between volunteer usage and greater control and supervision of youngsters or of individualized handling of probationers" (p. 22). Put otherwise, he suggests that the observed reduction of institutionalization rates in the Boulder Court in 1967 "...may well be related to the increased experience the Court staff had in volunteer programs and the increase in volunteer usage" (p. 15), and that "the data indicate...an increase in the tailoring of probationary rules to the individual needs of probationers" (p. 17).

Pinto cautions the reader that these relationships may be spurious. He suggests that the drop in the institutionalization rate in the Boulder Court in 1967 "...may either be a genuine drop, or a function of the fact that a larger number had not been on probation as long and that revocation of probation [prior to institutionalization] would occur later among the youngsters adjudicated delinquent in 1967" (p. 15). This seems to be an important point since 40 per cent of juveniles placed on probation in 1966 in the Boulder Court were on probation for more than 12 months (p. 16), and the study ended in April of 1967. Thus a sizable proportion of the total court population placed on probation in 1966 were most likely still on probation.

In reference to the goal of "individualized justice," Pinto notes that

> it is impossible to say, however, that the reason this goal was achieved was the volunteer program. It is theoretically possible that the Court staff, for instance, made special efforts to meet the expectations of the Judge [who favored the use of volunteers]. It is also theoretically possible that they could have made these efforts with or without the cooperation of volunteers (p. 18).

Pinto's argument is that volunteers were instrumental toward maintaining "control" of juveniles within the court, thereby diverting youngsters from institutional incarceration. Examination of the Boulder Court's usage of its formal mechanisms of control (temporary custody, modifications in the terms of probation, etc.) during a three-year period prior to the Demonstration Project indicates that the court had a recent history of frequent use of these control mechanisms. In fact, the most marked increase in this trend occurred between 1964 and 1965 (p. 17). Thus it seems that a trend toward "individualized justice" already may have been established in the Boulder Court.

The second major issue explored in the research was that of differential volunteer program success. Pinto and his associates conclude that probationers supervised by DPO's were initially perceived by the staff to be the most serious cases, yet they showed the most marked improvement during the probationary period. This was the strongest case built for differential program success. Pinto suggests that "...these findings are open to a number of different interpretations and cannot be

assumed to be a blanket support of the [volunteer-manned] programs" (p. 120).

The impact of one major element of the court programs -- the Work Program -- was not explored in the research report. This program "...assigned youngsters to work a specific number of days for a municipality or public agency in the County of Boulder. The amount of work assigned was commensurate with the seriousness of the youngster's offense and one could have one's time reduced for good behavior" (p. 8). No indication is given as to what proportion of the study population was assigned to this program, nor were any speculations made as to the possible impact of such a program.

In general, the results of this research do not offer clear support for the effectiveness of volunteer-manned programs. As Pinto notes, "it is not possible to determine whether or not [the basic goals of the court] were achieved partly or wholly through the use of volunteer-manned programs" (p.121). Pinto also cautions against generalizing the results of this research to other courts and puts the research in the appropriate perspective: "This research furnishes a detailed description of one Juvenile Court program of volunteer usage" (p. 121).

Denver County Court Demonstration Project. The subjects selected for study in the Denver County Court Project (Barker and Matson, 1968) were generally young-adult misdemeanants. The study population was divided into control and experimental

groups. Control Group I consisted of most adult misdemeanants placed on probation during July-August, 1966 and during the same months of 1967. Control Group II was made up of most adult misdemeanants granted probation during September-October, 1966 and in the same months of 1967. Most persons placed on probation in November-December, 1966 and 1967 were assigned to the Experimental Group. The authors indicate that demographic and offense data were obtained on all three groups; however, test and retest data were obtained only on Control Group II and the Experimental Group, and that data on probation counselors were obtained only on the Experimental Group. They also note that other problems were realized in the implementation of the research design and that some data were mixed and other lost.

The research report reviewed here does not contain the results of retesting the groups brought into the study population during the second year. This report also consists of the results of analysis on only two samples, Control Group II (N = 45) and a sample drawn from the Experimental Group (N = 28). All probationers in the Experimental Group were supervised by adult community volunteers (lay-counselors). Smaller samples were drawn for analysis because of the availability of relatively complete data on them.

Self-administered questionnaires were given to both groups upon inclusion in the study and one year later. Testing consisted of a demographic questionnaire, selected instruments

within the California Psychological Inventory,[8] a self-report measure of deviance, and a self-concept instrument.

A comparison of responses on the several instruments over a one-year period was made between Control Group II and the Experimental Group. (However, only 8 of the Control Group II members returned to the court at the end of the one-year period for re-testing.) The self-report instrument asked the frequency with which persons had committed specific deviant acts; however, no time period was specified on the instrument. It was concluded that self-reported deviant behavior dropped substantially more among Experimental Group members than among Control Group members over the one-year period.

Comparison of self-evaluation data revealed that the Experimental Group improved markedly over the one-year period while the Control Group showed a poorer evaluation of themselves. Again, only 8 of the Control Group members were re-tested.

Analysis of scores on the California Psychological Inventory scales suggested that the Experimental Group evidenced a stronger trend toward the norm that did the Control Group over the one-year period.

Offense and arrest data were computed for a sub-sample (N = 54) of the two Control Groups brought into the study during the first year, and comparisons were made with a sub-sample (N = 44)

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[8] "Other tests were not reported here because, as was determined by the [court] staff they were serving clinical purposes and were not pertinent for research purposes" (p. 17).

of members in the Experimental Group. It was found that both groups (Control and Experimental) reduced their arrest and offense rates while on probation -- compared with their levels of arrests and offenses prior to involvement in the study. However, the reduction was greatest among members of the Experimental Group.

The authors caution that their comparison of demographic characteristics of Experimental and Control Group members suggests that a sample bias was introduced in the selection of probationers for volunteer assignment and also for probation. They also suggest that the research results cannot unequivocally be attributed to the treatment program (the use of community volunteers) and may be merely an effect of probation itself for the Experimental Group.[9]

Primarily due to the inability of the court or the research staff to implement the planned research design and maintain controls appropriate for insuring an adequate comparison group, these research results cannot be considered definitive.

Seattle, Washington, Division of Adult Corrections. Alfred Lawyer (1970) conducted an ex post facto study of the impact of volunteer counseling in the Washington State Reformatory.

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[9] Durning and Barker (1970) found similar research results and arrived at this same conclusion regarding the effectiveness of volunteer counselors after analyzing a larger part of the data collected in this Denver Court project. See their report for a more complete and exact statistical analysis on additional project data. Also, a more comprehensive report containing precise statistical analyses is forthcoming from Ronald Matson. Through a personal communication (September, 1971) Matson stated that comparisons of measures of behavioral change for court staff

The Job Therapy Program in Seattle provided volunteer adults who were assigned as "sponsors" of reformatory inmates. Lawyer's report is the result of an attempt to evaluate the program. Through the ex post facto design a comparison groups' rates of recidivism after being paroled from the Washington State Reformatory were compared with those of the treatment group, which received social attention (sponsorship) from volunteer adults.

The treatment group consisted of 90 inmates released between January 1, 1966 and March 31, 1968.[10] Sponsored inmates were not selected randomly since they volunteered for a sponsor and were then screened according to the criteria of "...need and probable response to sponsor visits..." (p. 19). The comparison group was drawn from the remaining population (835) of non-sponsored inmates released during the above period. The procedure used resulted in the selection of 90 inmates matched on two variables: sponsored subjects' level of outside social contacts and date of release. The two groups were then found to be equivalent using ten variables known to be correlated with rates of recidivism.

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and volunteer-counseled groups revealed that the amount of change was greatest, but not statistically significant, in the volunteer-counseled group.

10 Altogether, 925 inmates were released from the reformatory during this period.

The base rates of parole failure (defined as return to any State of Washington institution by April 1, 1970) used to make comparisons was that rate for the entire population (925) of parolees released during the period between January 1, 1966 and March 31, 1968. The failure rate for the entire population was 39.3 per cent. Analysis of outside contacts for the entire population revealed "...that the greater the level of outside contacts, the greater the probability of parole success" (p. 27).

When Lawyer compared the rate of failure in the treatment group with the rate in the selected comparison group -- which had the same frequency of outside contacts as did the treatment group during the entire period of confinement -- he found that the sponsored group had a significantly lower rate of failure (33.3 per cent to 52.2 per cent) despite the fact that these two groups were closely matched on ten variables related to rates of recidivism. Thus the rate of failure among the sponsored group was slightly lower than the rate for the entire population (33.3 per cent to 39.3 per cent).

Lawyer attributed the low rates of parole failure among sponsored inmates, in comparison with the rate for the total population and the comparison group rate, to the "social attention" given sponsored inmates by volunteers. Recall that the comparison group had the same level of outside contacts as did the treatment group during their entire period of confinement, as the two groups were matched on this basis. (The length of exposure of sponsored inmates to volunteer counselors was not

indicated.) His logic is that even though both sponsored subjects and the comparison group had a lower level of outside contacts in comparison with the entire population of non-sponsored subjects, the fact that the treatment groups' parole failure rate was considerably lower than that of the comparison group and slightly lower than the rate for the entire population of non-sponsored inmates indicates that volunteers' contacts with sponsored inmates made up for their lack of outside contacts (p. 29). That is, it was sponsor contacts which produced the difference in parole success between sponsored and non-sponsored inmates.

Lawyer cautions that "the results obtained in this study may very well be attributed to some differentials in selection of inmates for sponsorship, in the parole experience and factors such as environment, employment chances, family and friends variances and a host of other unknowns that may affect the probability of parole success" (p. 33-34). He also suggests that, "as with most studies of an ex post facto nature, particularly one in which the selection of subjects for treatment is other than random or by matching cases, inferences from findings must be made with caution" (p. 34). He further notes that "this is especially true when the independent variable, social attention, defined as the addition of the outside contacts of the sponsor via letters and visits, was not measurable" (p. 33).

The efficacy of volunteer counseling is not clearly supported in Lawyer's research primarily because of the two

critical limitations that he mentions: the apparent selection bias introduced in the assignment of volunteers to inmates, and inadequate measurement of the independent variable, social attention. Lawyer notes that "...need and probable response to sponsor visits were the criteria used in recommending them for sponsorship" (p. 19). All of the sponsored inmates (except one) volunteered for sponsorship. He also makes it clear that it was not possible to measure volunteer contacts. The only measure of outside contacts, or social attention, was a general measure of all outside contacts. It was not possible to separate sponsor contacts from others. Thus the possibility exists that other kinds of social attention were instrumental toward fostering successful adjustment during the parole period.

Despite these limitations, the possibility exists that the reformatory staff was able to select inmates who could benefit from social attention provided by persons outside the institution. However, even this possibility does not warrant declaring that contacts with volunteers would be more helpful than employees, clergymen, marriage counselors, friends, and relatives. The impact of volunteers on parole success was not definitively measured in this study since volunteer contacts could not be separated from all other contacts.

Jefferson County, Colorado. This research report (Bergman, et al., 1970) is a descriptive follow-up study of the opinions of volunteer probation counselors and adult misdemeanant probationers concerning the effectiveness of the volunteer probation program of the Jefferson County Court. The study was designed to examine volunteer counselors' opinions of the volunteer program and their counseling experience with probationers, and probationers' opinions of the volunteer program and the effectiveness of their counselors. No control group was utilized. A random sample of 45 probationers (terminated between June 1, 1969 and November 30, 1969) and 45 counselors were interviewed upon termination of probation.

A statistically significant number of the volunteer counselors who rated the training program (in which they participated) as either "good" or "excellent" and "very helpful" or "helpful" also thought their counseling effort had been "very effective" or "effective." About one-half of the probationers thought the volunteer counseling they received had been "very helpful" or "helpful." Those offenders who were on probation for over 6 months expressed this opinion more often than did those whose probationary experience lasted fewer than 6 months.

Interviews with probationers revealed that the "overwhelming majority" of probationers in the study were neither arrested nor convicted for any offense following their termination. Neither court nor law enforcement records were examined to determine if the probationers had been arrested and convicted of an offense

since termination. The probationers were asked if they had been arrested and convicted since termination of probation (and the time period which had passed since termination varied among cases from one to 7 months).

The most serious limitation of this study is that it dealt only with successful probationer-volunteer relationships, since probationers terminated during the study period who were again placed on probation during the same period (for a new offense) were excluded. The authors conclude that "inclusion of such probationers [in the study] would have affected the results of the study because their opinions about the terminated probation would be influenced by the subsequent one" (p. 36). The authors also note the principal limitation of their research procedures with regard to determination of rates of recidivism: "This period of time [one to 7 months following termination of probation] was probably not sufficient to give a long-term assessment of the program's effectiveness in regard to the probationer's adjustment" (p. 88).

This study is not primarily concerned with the issue of whether or not volunteers are successful counselors; rather, it is a descriptive study of the characteristics of probationer-volunteer relationships, and the opinions of volunteers about the program in which they participated. Thus the study's usefulness is mainly in assisting developers of volunteer

programs toward the designing of a volunteer program which volunteers are likely to deem a good one.

The projects reviewed in this chapter represent the most definitive research results on the effectiveness of volunteer counselors in correctional settings. It is apparent that little experimental research of a conclusive nature has been conducted. The bulk of research on volunteers has been of the "survey" type, focusing on the relations between courts, their staff members, and volunteer counselors. Only a few studies have been conducted with the aim of investigating the impact of volunteer counseling on the lives of those whom they counsel.[11]

Three common methodological problems pervade the studies reviewed in the preceeding pages. (1) A selection bias apparently was built into the several projects through the procedures used to determine which individuals were to be exposed to volunteer counseling. The criteria used in the selection process were usually unclear thus decreasing our knowledge of the characteristics of offenders who were found to be receptive to and helped by volunteer counseling. (2) The attempts made to ensure

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[11] No attempt is made here to review all the research relevant to usage of volunteers in correctional settings. Only the most noteworthy research efforts have been considered. For a rather comprehensive overview of all volunteer-related research known to the National Information Center on Volunteers in Courts, see Ernest L. V. Shelley, "Volunteers in the Correctional Spectrum: An Overview of Evaluation Research and Surveys," Boulder, Colorado: National Information Center on Volunteers in Courts, 1971.

comparability of treatment and control groups lacked precision, making determination of the effectiveness of volunteer counseling less certain. (3) Each of the studies failed to adequately deal with the methodological problem of measuring change in the behavior and attitudes of offenders. Complex issues surround the procedure of comparing rates and scores through time.

Despite these limitations, the several studies suggest that volunteer counselors have an impact on the behavior and attitudes of offenders. Put simply, something favorable seems to be going on in the volunteer-offender relationships which cannot be discounted. On the other hand, the effectiveness of volunteers has not been demonstrated conclusively.

The aim of the research reported herein is to explore the issue of the effectiveness of volunteer counseling of juvenile probationers, while attempting to avoid the methodological weaknesses of previous research efforts. It is hoped that a more rigorous design, coupled with a tenable theoretical explanation will result in more definitive findings relative to volunteer counseling.

A brief summary of the genesis and development of the research effort reported herein follows. A detailed description of the study design is made in Chapter Three.

The Adams County, Colorado, Volunteer Project. Officials in the Juvenile Probation Department of the Seventeenth Judicial District Court of Colorado indicated to the author, in January,

1969, that the court was considering a large-scale program involving the use of adult non-paid, non-professional, community volunteers as counselors of juvenile delinquents. The court wished to undertake an evaluation which would investigate the extent to which volunteer counseling may be an effective treatment technique in this particular court. Thus the general research problem presented to the author was that of determining the extent to which volunteer counselors may be deemed to be an effective resource in the court's attempts to rehabilitate juvenile offenders.

Adams County, Colorado is adjacent to Denver, Colorado and includes six municipalities (Aurora, Northglenn, Brighton, Commerce City, Thornton, and Westminster) of roughly 20,000 population each. Most of the geographical area of the county is semi-rural and the majority of the population of Adams County would be categorized as working-class, with probably equal proportions of both middle- and lower-class families.

We now turn to the theoretical framework employed in this research.

CHAPTER TWO

THEORETICAL CONSIDERATIONS

General Theoretical Considerations

The research efforts reviewed in Chapter One seldom incorporated a theoretical explanation of the acclaimed success of volunteer counselors. A theoretical framework is adopted in the research reported herein in an attempt to account for the outcome of interpersonal relationships between regular paid probation officers and probationers, and between non-paid community volunteers and probationers.

The author's exposure to information relevant to the use of community volunteers as counselors of juvenile probationers (and as counselors in other correctional settings) has suggested that the most frequently offered explanation for the acclaimed success of volunteer counselors is that they possess the capacity to develop a higher quality interpersonal relationship with juveniles deemed to be in need of counseling in comparison with, say, the ordinary relationship between probation officers and juveniles. This is argued to be the case for several reasons. Probation officers ordinarily have too large a responsibility (excessive caseloads) to allow them to work with individuals on a frequent basis, thereby diminishing their effectiveness as counselors.

One-to-one relationships, which are possible through the use of volunteers, should be more effective toward bringing about change in the behavior and attitudes of juvenile offenders. It is suggested that juveniles in trouble with the law can be influenced by a person who demonstrates that he "cares." Probation officers presumably are unable to demonstrate such concern; they have a job to do. Volunteers have the available time to do things with probationers; probation officers could not take more than a few of their charges hiking in the mountains, to a ball game, to a movie, etc. -- activities which result in a closer relationship with juveniles under their supervision. In summation, volunteer counselors are consistent with a "humanitarian" approach toward the rehabilitation of juvenile offenders.

Put otherwise, the distinction between probationer-volunteer and probationer-probation officer relationships is generally considered to be an informal-formal one. Interaction between probationers and volunteers is expected to proceed in a less structured manner whereas probationer-probation officer interaction is much more likely to proceed by certain rules.

The theoretical framework which is here imposed upon selected features of the probationary experience is conceptualized as having relevance to several of the preceding notions of differential effects of probation officer and volunteer supervision of juvenile probationers. A general discussion of the theoretical notions of George C. Homans follows.

George C. Homans' Theory of Elementary Social Behavior.[1]

Homans' major works (1941, 1947, 1949, 1950, 1954 [see Riecken], 1955 [with Schneider], 1958, 1961, 1962, 1964a, 1964b, and 1967) relevant to his theory of elementary social behavior, especially The Human Group (1950) and Social Behavior: Its Elementary Forms (1961), are based on two assumptions borrowed from elementary economics and B. F. Skinner's behavioral psychology, thus prompting Boulding (1962: 458) to call it the "economic pigeon theory of interaction." The basic assumption borrowed from Skinner is that all human behavior is shaped by differential reinforcement. Homans borrowed from economic theory the definition that profit equals reward minus cost. In Homans' words: "Briefly, behavioral psychology and elementary economics envisage human behavior as a function of its pay-off: in amount and kind of reward and punishment it fetches.... Thus the set of general propositions I shall use...envisages social behavior as an exchange of activity, tangible or intangible, and more or less rewarding or costly between at least two persons" (1961: 13). His theoretical view is predominantly a "psychological reductionist" one since he believes that sociological variables originate in behaving individuals and operate through psychological mechanisms (Homans, 1949; Homans and Schneider, 1955; Homans, 1961: 12).

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[1] Volume 34 (Spring 1964) of Sociological Inquiry is devoted to research and commentary on the theorems and perspective of Homans. For other critiques and discussions of Homans' thinking, see Abrahamsson, 1970; Boulding, 1962; Buckley, 1967; Davis, 1962; and Sorokin, 1966:528-52. Simon, 1952, and Maris, 1970, have attempted to construct systematically and logically Homans' theory.

Thus Homans' major theoretical interest is in elementary social behavior: "It is an exchange of rewards (or punishments) between at least two persons; the exchange is direct rather than indirect; and it is actual behavior rather than a norm specifying what behavior ought to be" (Homans, 1961:378). Consequently, the small group is the principal social structure of interest to Homans.

The Human Group (1950) and Social Behavior: Its Elementary Forms (1961) contain the bulk of Homan's explicit theoretical developments. In The Human Group Homans examined five detailed studies of human groups (ranging from a group of industrial workers to an entire town) and used these data to develop a conceptual framework applicable to the several case studies. His framework can be summarized as consisting of the general "elements": persons (at least two), their activities (attitudes and behavior), their sentiments (feelings toward one another), and their interaction (when some unit of activity of one person is stimulated by some unit of activity of another). Other elements are introduced in Homans' theory but are infrequently mentioned -- with the exception of norms. He then attempted to generate propositions about the relations among the elements and to demonstrate that the propositions held in more than one of the studies. No attempt was made in The Human Group to "explain" the propositions developed. In Social Behavior Homans attempted to explain (by deductive logic) the propositions developed in The Human Group.

> We need no new propositions to describe and explain the social. With social behavior nothing unique emerges to be analyzed in its own terms. Rather, from the laws of individual behavior follow the laws of social behavior when the complications of mutual reinforcement are taken into account. Taking our departure, then, from what we know about animal behavior [primarily B. F. Skinner's laboratory pigeons], we shall state a set of propositions that seem to us fundamental in describing and explaining human social behavior, or human exchange (1961:30-31).

Our concern is focused primarily on Homans' theoretical framework as developed in The Human Group. That framework and several of the propositions therein seem directly applicable to the research question here under consideration. The reader should be cautioned that Homans' theoretical notions have been subjected to much criticism; the most damaging accusations have been that his concepts are vague and tautological (see Abrahamsson, 1970; Deutsch, 1964:163; and Sorokin, 1966:533-34). Thus the following definitions of his concepts (as offered in The Human Group) are indeed subject to question.

Group - "...a number of persons who communicate with one another often over a span of time, and who are few enough so that each person is able to communicate with all the others, not at second-hand, through other people, but face-to-face " (1950:1).

Interaction - "...refers to the fact that some unit of activity of one man follows or...is stimulated by some unit of activity of another.... We are talking about the sheer fact of contact, or association" (1950:36).

Sentiment - "...internal states of the human body.... They run all the way from fear, hunger, and thirst, to such probably far more complicated psychological states as liking or disliking of individuals, approval or disapproval of their actions" (1950:37-38).

Activity - refers to behavior: "...things that people do..." (1950:34), which others evaluate in terms of their own norms and values. Elsewhere, Homans refers to "activities proper" as "...including such things as expression of agreement with another's opinion or a change in physical production [behavior] in accordance with another's request" (1961:109). Thus "activities" refers to both behavior and attitudes.

We wish to add two definitions to Homans' basic ones. The first, "authority," is used by Homans as an "other thing" which affects the relationships among his major variables. The second concept which we are adding is "reference group." We propose that this variable be added to Homans' conceptual framework and constitute an extension of his theory. Our contention is that, given the small group situation within which we are applying Homans' theory, a reference group external to the small group studied should be considered as an "other thing" affecting the social processes being studied.

Authority. Homans defined authority primarily from a social control standpoint: "To have authority it is by no means enough that a man should give orders to others. He must give orders that they will obey..." (1950:116-17). The concept

refers to a situation in which a superior-subordinate relationship exists between two or more persons.

Reference Group.[2] A common definition of reference groups is simply those groups in which an individual considers himself a member or to which he relates himself psychologically for comparisons or contrasts of his self-conception, behavior, goals, or attainments. The importance of the concept is summarized by Shibutani (1955:562): "The inconsistency in behavior as a person moves from one social context to another is accounted for in terms of a change in reference groups; the exploits of juvenile delinquents...are being explained by the expectations of peer-group gangs; modifications in social attitudes are found to be related to changes in associations."

Homans begins with the contention that the three basic elements of social behavior (activities, interaction, and sentiments) in small groups are mutually dependent. Thus he considers three paired relations: interaction-sentiment, sentiment-activity, and activity-interaction. The mutual dependence of the three is elaborated: "Interaction between persons leads to sentiments of liking, which express themselves in new activities, and these in turn mean further interaction" (1950:119). This thesis is based on a critical assumption: "We assume that if only we can 'get

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[2]For the seminal development and usage of this concept, see Chapman and Volkman, 1939; Hyman, 1942; Kuhn, 1964; Merton, 1957: Chapters 8 and 9; Merton and Kitt, 1950; Newcomb, 1950; Sherif, 1948, 1953; Sherif and Sherif, 1956; and Shibutani, 1955.

people together,' they will like one another and work together better" (1950:111).

Homans derived several propositions from the major thesis expressing the interdependence of interaction, sentiments, and liking. Two of his propositions are of interest here.

Proposition 1. "If the frequency of interaction between two or more persons increases, the degree of their liking [expression of sentiments] for one another will increase and vice versa" (1950:112).

Homans is quick to point out that all of his hypotheses hold good only so long as "other things are equal." One of these other things is the presence of "authority" in the relationship. Such a feeling imposes an element of "constraint" upon the interaction of individuals, which, in turn, nullifies the relationship between interaction and liking. We shall consider this variable to be an intervening one -- in each of the propositions.

The second of Homans' propositions of interest here is found in his major thesis: "Interaction between persons leads to sentiments of liking, which express themselves in new activities, and these in turn mean further interaction" (1950:119).

Proposition 2. If the degree of liking and interaction between two or more persons increases, the more alike their activities will tend to become, and vice versa.[3]

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[3] James Davis (1966:80-81) has likewise interpreted Homans as favoring this "similarity hypothesis."

Put in other words, this means that as interaction increases between two or more persons, the more alike their behavior and attitudes tend to become.

We suggest that the individual's reference group be considered an intervening variable in this hypothesis. Our thinking is that even though the probationer and his counselor like each other, their behavior and attitudes will be decreasingly similar when the probationer's peer group has high delinquency involvement.

The following is a brief summation of empirical findings relevant to these two propositions.

With regard to the first proposition, Homans (1950) found in his analysis of data on the Bank Wiring Observation Room (Roethlisberger and Dickson, 1939) and on the Norton street gang in "Cornerville" (Whyte, 1943) that interaction and liking are mutually dependent.

The Sherifs (1951) made a rather complicated study at a summer camp for pre-adolescent boys. At the beginning of the summer, the boys were allowed to go around together in a single group. At the end of the given period, the boys were given a sociometric test on the basis of which they were divided into two groups of equal size and also divided sociometrically. That is, the two groups were chosen so that any one boy would find about the same number of boys he had chosen in his own group and in the other group. The two groups were separated for a time, each one playing and camping apart from the other. When the sociometric test was administered again, choices had shifted. Now

the choices of each boy were overwhelmingly members of his own group.

Festinger, Schachter, and Back (1950) showed that persons who had frequent opportunity to interact with one another, because of the strategic position of their apartments in a housing project, were likely to choose one another as friends.

Potashin's (1946) subjects were children in three grades of a primary school, whom he gave sociometric tests on the basis of which he put them in pairs of two kinds. In one set of pairs he put children who had chosen each other sociometrically. In the other set he put those who had not chosen one another. He gave each pair a subject for discussion and observed the interaction. He found that friends interacted more frequently than non-friends.

Bovard (1951) formed four groups of college students who were instructed to discuss the same problems under the chairmanship of a man whom he designated. The chairman of two of the groups, called "leader-centered," monopolized the discussion by having all the comments and questions addressed to him -- allowing little communication among the members themselves. The chairman of the other two groups, called "group-centered," redirected questions and comments back to the members for discussion among themselves. A sociometric test which was administered at the end of the meeting revealed that the number of choices which members gave members in the same group were fewer in the "leader-centered" discussion groups than in the "group-centered" ones.

Note that in the Sherif, Festinger, and Bovard studies interaction was the independent variable -- an increase in interaction led to an increase in friendship. In the Potashin study liking or friendship was the independent variable -- an increase in friendship led to an increase in interaction. The two variables seem to be mutually dependent, as Homans has suggested.

Other studies which are less directly but generally supportive of this proposition were made by Deutsch, et al. (1951), Byrne and Buehler (1955), Koller (1948), and Rosenfield and Jackson (1965). These studies have shown frequency and duration of interaction to be positively related to attraction (liking). Stated in other words, Homans' second proposition suggests that "...a person chooses, or expresses his liking for another person to the degree that the other's activities realize the chooser's norms and values" (Reicken and Homans, 1954:788). The following studies are supportive of this proposition.

Homans (1950), in a reappraisal of the Bank Wiring Observation Room study in the Western Electric Researches, pointed out that the most popular men were those whose activities most nearly realized the norms of the group, particularly the output norm. And in a similar reappraisal of Whyte's findings Homans noted that a member's rank tended to correlate with the "goodness" of his activities, the correlation being especially characteristic in the case of such measureable activity as bowling.

Jennings (1943) analyzed the data collected in a study by Moreno (1934) in a correctional community of more than 400 girls who lived in cottages in groups of twenty. The girls were given sociometric tests in which they were asked to choose the girls with whom they would prefer to live, work, study, and spend their leisure time. Jennings showed that the choice of a person depended on the extent to which her activity measured up to the norms of the chooser.

Newcomb (1950) reported that in a college community dominated by a "liberal" climate of opinion, a person's sociometric score tended to be higher the more he conformed in his activity and opinions to liberal norms.

French (1951) found that sociometric rank within a company of naval recruits was related negatively and significantly to a person's number of disciplinary offenses and attendances at sick bay.

In a study mentioned earlier, by Festinger, Schachter, and Back (1950), the investigators found, in a study of sociometric choice in a housing community, that the higher the proportion of within-court choices of friends, the smaller the proportion of members who deviated from the norms of the court.

McCandless (1942) carried out a study in a training school for adolescent boys. He began with two cottages which were under an autocratic form of government. The control cottage retained this form of government throughout the observation period, and the experimental cottage changed to a form of greater self-government. Before the change began the occupants of both

cottages made sociometric choices based on leisure-time criterion and were also given a "dominance" rating by their adult supervisors. McCandless found a high correlation between rated dominance and sociometric popularity, which he expected, reasoning that "the openly dominant boy in an autocratic society will be admired...because he dares to react in the fashion in which all boys would like to react if it were not for fear of punishment or failure involved" (1942:531). When the test was repeated eight months later, McCandless found that the correlation had dropped below significance in the experimental group and had increased in the control group. The six boys who were originally rated least dominant had realized a significant increase in popularity and the six who were originally rated most dominant had lost popularity noticeably (though not significantly).

Several other studies have found similarity of attitudes to be related to frequency of interaction. Newcomb (1956, 1961) found that over an extended period of time, group members in a dormitory setting tended to develop attitudes similar to attitudes held by those whom they liked. A direct relationship was not found between interaction-frequency and similarity of activities (attitudes). Liking or attraction, was found to be an intervening variable.

Studies made by Levinger and Breedlove (1966), Loomis (1946), Marks (1959), Precker (1952), Richardson (1940), and Winslow (1937), confirmed a positive relationship between attitude-similarity and friendship-formation although no explicit relationship between

frequency of interaction and similarity of attitudes (or activities) was demonstrated.

Convincing evidence has been presented by Corsini (1956), Hoffman (1958), Hoffman and Maier (1966), Izard (1963), Murstein (1961), Reader and English (1947), and Thompson and Nishimura (1952) to the effect that friendship and similarity of personality traits are not related. However, these studies are not directly applicable to Homans' proposition here under consideration -- which suggests that similarity of activities is related to frequency of interaction and liking, not personality traits.

The studies reviewed here are generally supportive of Homans' several propositions. However, it should be noted that no attempt has been made here to assess theoretical or methodological characteristics of the reviewed research efforts. Durning (1971) has attempted to do so and also offers a rather complete summary of several explicit features of studies relevant to the general "similarity-attraction" hypothesis.

Specific Theoretical Considerations

The aim of this section is to demonstrate the specific applicability of Homans' theoretical notions to the research situation at hand. In the first section of this chapter, Homans' theoretical framework was presented and particular propositions were stated. In this section, we will operationalize Homans' theoretical framework by applying it to a particular small group, and offer empirical referents for the variables in his propositions,

thereby transforming them into hypotheses. The next chapter contains a description of the research setting and the methodological procedures used to gather data relevant to the variables in Homans' propositions. We shall now discuss the general applicability of Homans' theoretical framework to the research problem at hand, and operationalize the theoretical concepts in his framework (and the concept we have added): group, interaction, sentiments, activity, authority, and reference group -- respectively.

Homans' assumption that "...if only we can 'get people together,' they will like one another and work together better" (1950:111), is remarkably similar to notions offered in support of the use of volunteers as rehabilitation agents. The popular thinking in support of volunteers is that the expression of humanitarian concern for youths who have become wards of the correctional system will result in their rehabilitation. Arguments in support of this contention are vague and unsystematic. However, the underlying rationale seems to be that the volunteer, by virtue of his opportunity to work one-to-one with a problem youth, can develop a close relationship with the juvenile -- a relationship of the quality which will produce changes in the behavior and attitudes of the deviant youth, i.e., rehabilitate him.

We are here attempting to measure the effectiveness of non-paid, adult community volunteers as counselors of juveniles who have been placed on probation by a Juvenile Court. The effectiveness of volunteer counselors is compared with the effectiveness of

regular paid, professional probation officers. Homans' theoretical framework is adopted in an attempt to account for the effectiveness of both kinds of counseling, since it offers an explanation for changes in human behavior and attitudes. His explanation is based upon some aspects of participation in small groups.

Group. The small group with which we are concerned is made up of two persons: the probationer and his counselor. Following Homans' definition of a group: "...a number of persons who communicate with one another often over a span of time, and who are few enough so that each person is able to communicate with all the others..face-to-face" (1950:1), the dyad consisting of a counselor (either a probation officer or a volunteer) and a probationer, meets the requirements of Homans' definition.

Interaction. The critical feature of Homans' concept, interaction, is merely "contact" or "association" (1950:36). He also suggests that interaction "...refers to the fact that some unit of activity of one man follows or...is stimulated by some unit of activity of another..." (1950:36). We operationalize the interaction between a probationer and a counselor as their physical association with each other, face-to-face (or via telephone), and including the behavior in which they engage while in each other's presence. Thus each instance of their association or contact with each other is called a unit of interaction.

The occurrence of interaction between probationers and their counselors was obtained by requesting information from each counselor regarding each unit of interaction they had with the juvenile assigned to them (and within the study).[4]

Sentiment. We have chosen to limit ourselves to a particular feature of sentiments since Homans' general definition of the concept ("...internal states of the human body..." [1950:37]) suggests a wide array of empirical referents. However, he did suggest liking or disliking of individuals as a referent and this is the operationalization which we prefer. Specifically, the extent to which both probationers and counselors indicate that they like each other is taken as a referent of sentiments.

Empirical indicators of the probationers' liking of their counselors were obtained by asking them to respond to a 9-point Likert-type scale (with responses ranging from "dislike very much" to "like very much") borrowed from Horowitz, Lyons, and Perlmutter (1951:65). Probationers also were asked to respond to a 9-item scale designed to indicate the extent of liking, which is a modification of a scale developed by Back (1951:15). Counselors were asked to indicate the extent to which they liked their assigned probationer on the Likert-type scale and both counselors and probationers were asked to indicate on this scale the extent to which they felt their counselor or probationer liked them.

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[4]The data collection process is discussed in Chapter Three. All instruments used in the study are presented in Appendix A.

Activity. Homans defines activities as referring both to attitudes (expression of agreement with another's opinion) and behavior (things people do). Notice that Homans calls attitudes toward other persons, sentiments. Here, in the context of "activity" Homans is referring to attitudes toward objects other than members of the group to which he belongs, in addition to behavior. Thus we operationalize activity as the probationer's behavior and self-attitudes, and attitudes toward life in general.

Indicants of activity (behavior) engaged in by the probationers were found in court and police records. Other indicants of behavior are probationer, counselor, and teacher perceptions of the probationer's family, social, and academic adjustment. Instruments used to indicate activity (attitudes) are the Gough and Peterson Socialization Scale (Gough and Peterson, 1952) and Srole's Anomy Scale (Srole, 1956).

Authority. Homans (1950:116-17) suggests that "authority" refers to the ability of one person to give orders to another which will be obeyed -- that is, a situation in which one person is able to "control" another. Homans exemplified the concept in a boss-subordinate context and from a "social control" viewpoint. He discusses authority in the context of a structured interpersonal relationship, analogous to our research setting. Here authority is operationalized as the probationer's perception of the extent to which his counselor attempted to exercise control over him, and play an authoritarian role.

Indicants of the probationer's perception of the extent to which his counselor attempted to control him or appeared to play an authoritarian role were obtained from the probationers' responses to two instruments developed by the author.

Reference Group. We have indicated that an individual's reference group is any group to which he relates himself psychologically for comparisons or contrasts of his self-conception, behavior, goals, or attainments. Here we are interested in the probationer's peer group -- persons his age with whom he associates on a fairly regular basis.

The composition of probationers' peer groups was determined by asking the probationers, their counselors, and their teachers to list friends of the probationers.

We have suggested empirical referents of Homans' conceptual variables and the one variable we added -- the probationer's reference group. Now we shall restate his propositions as hypotheses containing these referents, and discuss expected findings.

Hypothesis I. If the frequency of interaction between a probationer and his counselor is high, then the degree of liking will be high, and if the frequency of interaction between a probationer and his counselor increases, their degree of liking for one another will increase, and vice versa.

This hypothesis merely states that if a probationer and his counselor interact frequently, they will like each other, and if they increase the frequency of their contacts with each other, then they will like each other more. In other words, Homans suggests that there is a direct relationship between interaction and liking (sentiments).

Given the situation in which this hypothesis is tested, Homans' theory suggests that probationer liking of volunteers would be greater than their liking of probation officers. Volunteers are assigned to probationers on a one-to-one basis, whereas the probation officers in the study are assigned to about 50 cases each. This fact, of course, does not necessarily preclude a greater frequency of interaction in volunteer-probationer relationships than in probation officer-probationer groups. However, given their caseloads, probation officers' opportunities to interact with probationers are quite limited. Therefore, the structural features of the research situation suggests that there is a greater chance of an increase in interaction in volunteer-probationer relationships than in probation officer-probationer relationships. Given Homans' interaction-liking proposition probationers counseled by volunteers should like their counselors more. Our null hypothesis is that of no differences.

Homans has suggested that interaction and liking are mutually dependent; therefore, his theoretical notions suggest that an increase in liking between probationers and counselors will result in increased frequency of interaction. Homans is arguing

association (mutual dependence) between the two variables rather than linear causality.

Homans has suggested that authority is an intervening variable in this relationship -- that is, even though interaction increases, liking will not necessarily increase (and vice versa) if authority enters into the relationship. It is obvious that authority will be present in both volunteer-probationer and probationer-probation officer relationships, since both types of counselors are designated by the court to counsel the probationer while he is under the supervision of the court. However, advocates of the volunteer movement argue that probationers counseled by volunteers perceive their counselors to be less authoritarian than do probationers supervised by regular probation officers. Since this study is not designed to seek an explanation for this eventuality, we can only speculate as to why this might be the case. Volunteers in the Adams County Court possess less "power" than do probation officers in that they cannot directly take official action against their charges, i.e., revoke probation. Although volunteers can initiate such action, the procedure is realized only through the volunteers' supervising probation officer. It is also conceivable that probation officers are trained to display authority or that on-the-job experiences result in an increasingly authoritarian role. The mere fact that probation officers are employees of the court may be sufficient reason for probationers to perceive them as being more authoritarian. Likewise, it may be that the humanitarian concern which volunteers

supposedly express toward probationers results in their appearing to be less authoritarian from the viewpoint of probationers. On the other hand, these factors may be irrelevant to probationers' perception of authority in those who watch their lives. They may see all persons associated with the court as being authoritarian. We again offer the null hypothesis of no differences.

Hypothesis 2. If the degree of liking and interaction between a probationer and his counselor increases, their activities will tend to become more similar, and vice versa.

The hypothesis expresses the rationale behind rehabilitation through counseling. If the counselor and probationer develop sentiments of liking for each other, they will tend to develop similarity in their attitudes and behavior, and vice versa. In other words, if they like each other they should influence each other. Three possibilities are apparent: (1) the probationer's attitudes and behavior may become similar to those of his counselor, (2) the counselor's attitudes and behavior may become similar to those of his probationer, or (3) some accommodation may be reached. In this rehabilitation context, we would expect the first possibility to be the most likely one.

Should the hypothesis hold, we expect that the result of counseling will be a favorable change in the attitudes of probationers toward themselves and life in general; improved social, family, and academic adjustment; and a reduction in the amount of involvement in deviant behavior. These outcomes would be indicative of successful rehabilitation. Our research hypothesis is the null one.

Homans' intervening variable, authority, must be considered in this hypothesis as well as in the first one. The more authoritarian the probationer perceives his counselor as being, the less similar their attitudes and behavior are expected to be.

We have suggested another intervening variable which may negate Homans' proposed relationship between liking and activities: the probationer's peer group. We suggest that regardless of how strong sentiments of liking may be in a counselor-probationer relationship, similarity of activities will not result if the probationer attaches strong sentiments to his peer associations and if these peers have high involvement in delinquent behavior. Put more succinctly, we suggest that this reference group, external to the probationer-counselor relationship, may exercise greater influence toward maintainance and development of attitudes and behavior not consistent with attitudes and behavior manifested by the probationer's counselor. Our evidence of the impact of peer associations on the probationer will be indirect. We have collected police contact data and have recorded court-handling of each probationer's peer group members. We expect that whan a probationer's peer group appears to be highly involved in delinquent behavior there will be a decreased likelihood of similarity of attitudes and behavior between a probationer and his counselor. Such a finding would suggest that peer associations may be an important intervening variable, affecting the similarity of probationers' and counselors' attitudes and behavior -- even when strong sentiments of liking are expressed.

Other Research Interests

The third hypothesis tested herein is our general research hypothesis:

Hypothesis 3. If the increase in interaction and liking is greater in volunteer-probationer than in probation officer-probationer relationships, then greater similarity of activities will occur in volunteer-probationer than in probation officer-probationer relationships.

This hypothesis expresses our dominant research concern: the question of the effectiveness of volunteer counselors as compared with probation officers. The hypothesis is consistent with Homans' two hypotheses which suggest that when interaction and liking increase between two people, the similarity of their activities likewise increases. This hypothesis will be tested simply by comparing the two research groups' similarity of attitudes and behavior. Thus probationers' attitudes and behavior are taken to constitute the dependent variable of successful counseling.

A critical assumption is made here. It is that counselor behavior and attitudes are non-deviant in nature. No attempt is made in this research to assess the deviant character either of the attitudes or behavior of counselors.

Length of Treatment. An attempt is made to compare probationers deemed to have made successful adjustment during probation with others on the variable, exposure to counseling, or length of probation. The question

of interest is whether successful adjustment is related to length of exposure -- whether there is a continuous or threshold effect. If may be that certain types of probationers should be placed on probation for variable lengths of time. Court records are the source of information on this variable.

In the following chapter, the design of the study is described and the methodologies used to test the theoretical hypotheses, the general research hypothesis, and the a-theoretical interests are described.

CHAPTER THREE

DESCRIPTION OF STUDY

The principal objective of this research is to evaluate the effectiveness of volunteer citizens as counselors of juvenile probationers. This objective is facilitated by comparing the probationary experience of 40 matched pairs of probationers: one member of the pair is counseled by a community volunteer and the other by a regular paid probation officer.

The aim of this study should be made explicit. We are attempting to compare two treatment methods. No attempt is made to assess the general effectiveness of probation. The results of this study cannot be construed as such since subjects were selected in part on the basis of their maximum exposure to counseling. Consequently, "failures" (those who did not remain on probation for at least five months) were excluded from the study. Thus this study is a comparison of the two counseling techniques under optimum counseling conditions -- under conditions which are considered to be more favorable to success since the length of exposure to counseling has survived a minimum of five months.

The research incorporates a modified classical experimental design. Two populations were drawn from all male juveniles (adjudicated "delinquents" or "CHINS" [Children in Need of Supervision]) placed on probation in the Adams County Juvenile Probation Department between November, 1969, and February, 1971. During this period every male juvenile placed on probation was initially considered for inclusion in the study. A subject was excluded when (1) he was in the study for fewer than 5 months, (2) he was exposed to any treatment program other than regular probation counseling and supervision, (3) he was not adjudicated "delinquent" or "CHINS," (4) relatively complete data could not be gathered on the probationer (usually because of an inability to locate him or his expressed desire not to be included), (5) he resided in the "treatment"[1] area and a volunteer was not assigned to him, and (6) he resided in the "control" area and was not matched with a subject in the treatment area. Probationers meeting the first criterion were excluded on the grounds that a period of fewer than 5 months would be an insufficient period of time to adequately measure attitude and behavior changes. Probationers meeting the second criterion were excluded on the grounds that exposure to other treatment programs and techniques would confound the effects of regular

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[1] Henceforth, "treatment" group shall refer to those study probationers counseled by a community volunteer and "control" group, those counseled by probation officers.

probation officer or volunteer counseling. The third criterion assured study of only probationers who apparently were placed on probation with the aim of exposing them to regular counseling and supervision. These cases represent the bulk of probation caseloads and also the kind of cases to which volunteers currently are most likely to be assigned in most juvenile courts.

The classical experimental design was modified in that random assignment of probationers to treatment and control groups was not made. The county was divided into two unequal geographical areas (corresponding with the jurisdiction of probation officers who were available either for regular counseling or supervision of volunteer counselors). All male juveniles placed on probation in the Thornton, Northglenn, Aurora, and Brighton areas of the county were considered to be subject to inclusion in the treatment group in accordance with the above criteria. (In a few instances a volunteer was assigned within one month after the period of probation began and in a fewer number of instances a volunteer was assigned after the regular 6-months review hearing.) In this treatment area the 3 probation officers working the area were made "area counselors" of the volunteers assigned to probationers who were members of their caseloads.

The control group consists of 40 males selected from those supervised by probation officers in the remaining geographical areas of the county (Westminster and Commerce City areas) and who were matched with individual probationers in the treatment group.

From the pool of 50 cases on whom complete data were collected, the 40 who were most closely matched, individually, and ex post facto, were selected to constitute the control group.

Matching Criteria

Precision-matching of pairs of probationers -- one from the control group with another from the treatment group -- was attempted, on the basis of the following criteria:

Sex. Only males were included in the study, and male volunteers and probation officers counseled all cases.

Age. Probationers were matched within as small an age difference as possible on the basis of their age at the time they were included in the study, as indicated by court records.

Socioeconomic Status. Hollingshead's Two Factor Index (1965) was used to calculate social class position. His index utilizes education and occupation of the head of the household to determine social class levels. Information on these factors was obtained from the probation officer who provided the court with a "social history" of juveniles brought before the court. An attempt was made to match treatment and control probationers within each of the social class levels.

Offense History. Court records were used to determine the offense history of probationers, who were then matched on two dimensions: (1) the seriousness of the probationer's last alleged offense prior to inclusion in the study, and (2) number of alleged offenses one year prior to inclusion in the study. The

probationer's last offense was considered to be that offense which resulted in his being placed on probation -- as indicated in the "petition" which the court filed on the juvenile, stating "the facts which bring said child within the court's jurisdiction." When several "facts" or allegations were stated in the petition the most serious one was used for matching purposes. The offense was determined to be serious or non-serious based on whether or not it was a misdemeanor or a felony.[2]

With regard to number of offenses, probationers were classified as either "multiple" or "single" offenders, as determined by data gathered from three sources: (1) the court petition, (2) "Unofficial" court files, and (3) the court's "Informal Adjustment" files.[3] A probationer was categorized as a "single" offender if only one allegation had been made against him (as determined by examining all three sources). A probationer

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[2]Since the determination of whether an offense is a misdemeanor or a felony is often blurred, the decision was made to follow Erikson and Empey's (1963) scheme of classifying offenses, which approximates the distinction usually made between misdemeanors and felonies throughout the United States. The following offenses were classified as serious: rape, selling or using narcotics, arson, armed robbery, breaking and entering, forgery, auto theft, homosexuality, and theft (over $100). All other offenses were considered non-serious. For the use of similar distinctions, see Elliott (1966), Quay and Peterson (1958), Scarpitti and Stephenson (1971), and Voss (1966).

[3]"Unofficial" files contain records of allegations handled through conference, without the filing of a formal petition. "Informal Adjustment" means that a formal petition was not filed contingent upon rectification of the matter (sometimes requiring payment for damages done -- called "restitution") -- usually within 3 months.

was also categorized as a single offender if several allegations had been brought against him but all were alleged to have occurred on the same day[4] -- and provided that no other allegations appeared in the files. Juveniles were classified as "multiple" offenders when more than one offense appeared in the records and were recorded as having occurred on separate dates.

The above method of classification yielded four possible offense histories: single-serious; multiple-serious; single-non-serious; and multiple-non-serious. Probationers were matched within each sub-type.

Probationers were not matched on the basis of their having been adjudicated a "delinquent" or "CHINS" (Children in Need of Supervision) since this distinction closely corresponds with the juvenile's offense history. In other words, precision-matching according to offense history effectively controls for the kind of adjudicatory classification.

Length of Treatment. Pairs of probationers were matched on the basis of the length of time they were in the study. An attempt was made to match treatment and control subjects within one month on this criterion.

Ethnicity. As determined by demographic data provided by the probation officer who had compiled the probationer's "social

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[4]The reasoning behind this decision was that several temporally separated offenses seemed to indicate more serious involvement in delinquent behavior than several offenses occurring on the same day. Also, this procedure eliminates counting several related charges as separate offenses.

history," individuals were matched on the basis of "Anglo" and "other" ethnic backgrounds. All the "others" were Spanish American.

Basic data were gathered on probationers upon their inclusion in the study (usually at the time probation was granted), at 3-months intervals thereafter, and upon termination of their period of probation.

What follows is a description of the methods and instruments used to collect data relevant to the five variables contained in the hypotheses being tested: interaction, liking, activity, authority, and peer group delinquency involvement.

Let us now describe the study population (80 subjects) on each of the matching variables.

Age. The mean age of the 80 subjects was 16.7 years. Twenty-six per cent were 15 years of age, 39 per cent were 16, and 20 per cent were 17 years of age.

Socioeconomic Status. The mean social class level of all subjects was class IV -- "working class." Twenty-four per cent were in level III, 51 per cent were in level IV, and 23 per cent were in level V -- "lower class."

Offense History. Sixty-four per cent of all subjects' most recent offense prior to probation was a non-serious one and 36 per cent were placed on probation for a serious offense. The mean number of prior offenses was 1.7. Fifty-six per cent were alleged to have committed only 1 offense, 26 per cent were alleged to have committed 2 prior offenses, and 8 per cent were alleged to have committed 3 or more prior offenses.

Seventy-nine per cent of the subjects were adjudicated "delinquent" and 21 per cent were adjudicated CHINS.

Length of treatment. The mean number of months all subjects were in the study was about 8. Sixty per cent were in the study for 6 months, 20 per cent were in the study for 12 months, and 10 per cent were in the study for 9 months, and 5, 3, and 2 per cent were in the study for 5, 11, and 15 months, respectively.

Ethnicity. Eighty per cent of the subjects were Anglos and 20 per cent were Spanish Americans. A comparison of treatment and control groups follows.

We examined differences between treatment and control group mean scores on the matching variables in order to determine how closely the two groups were matched. Table 3.1 provides the mean scores and "t" values for differences on each of the matching variables: age, socioeconomic status (SES), seriousness of offense (OFFSER), number of prior offenses (OFFNO), length of treatment (LEN), and ethnicity (ETH). The table indicates that treatment and control groups differed significantly on

Table 3.1

COMPARISON OF TREATMENT AND CONTROL GROUPS

(Mean scores)

	AGE	SES	OFFSER	OFFNO	LEN	ETH
Treatment	16.8	3.9	1.6	1.9	9.0	1.1
Control	16.7	4.0	1.7	1.6	8.8	1.3
	N = 80 t = .27	N = 80 t = -.44	N = 80 t = -.22	N = 80 t = 1.46	N = 80 t = .33	N = 80 t = -2.28*

*p < .05

only one of the matching variables -- ethnicity. However, none of the correlations between ethnicity and the dependent variables was significant. Differences between the two groups on the remaining criteria are rather small, with the exception of number of offenses. The treatment group shows an average of .3 more prior offenses than does the control group. The importance of this difference is diminished when differences between the two groups on seriousness of offenses are examined. The control group evidences slightly more serious prior offenses. We conclude that treatment and control groups are highly equivalent on these matching criteria.[5]

Theory Variables

Interaction. Frequency of interaction was determined by "contact cards" which each counselor was asked to complete on

[5]We also assessed the quality of our matches by developing an "index of congruence" following Yinger, Ikeda, and Laycock (1967). This index tells us how closely our operations produced matched pairs of individuals, and thus is a rough indicator of equivalence. By assigning scores to differences between pairs on each of the matching variables, a scale ranging from "0" to 10 was produced. A score of "0" indicates a perfect match according to the definitions of the variables used whereas a score of 10 indicates the maximum possible measured difference between paired persons. The highest score among our 40 pairs of subjects was 3 -- a score obtained by two pairs. Twelve pairs had a score of 2, 18 pairs scored 1, and 8 pairs were perfectly matched. Both the median and mode score for all 40 pairs was 1, and the average score for all pairs was 1.2. These scores indicate that the two groups are highly equivalent. The contents of the "index of congruence" may be found in Appendix A.

each unit of interaction he had either face-to-face or by phone with his assigned probationer. The number of separate interactions per month were calculated in order to determine whether or not the frequency of interaction increased between each 3-months period. This datum was provided exclusively by the counselor.

Liking. The first measure of liking was obtained at the first 3-months interval after the subject was included in the study. (Thus no measure of initial liking was obtained from either the probationer or his counselor at the time he was included in the study.) Measurements of both probationer and counselor liking of the other, and of each's perception of the extent to which the other liked him were obtained at the end of each 3-months interval thereafter and at the time of the probationer's termination.

Activity. We have indicated that activity is operationalized as including both behavior and attitudes.

No measure of the behavior of counselors was made. Thus an assumption is made regarding the behavior of the counselors. It is that the counselors, during the period they are supervising a probationer, have a low level of involvement in deviant behavior.[6]

Measures of the behavior of probationers as perceived by others were obtained at 3-months intervals. Behavioral adjustment

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[6]The decision not to investigate probation officers' involvement in deviant behavior was deemed by the author to be a politically expedient one. This decision negated the utility of collecting such data on volunteer counselors.

in family and social situations was indicated from the standpoint of the probationer, his counselor, and his teachers. For probationers in the treatment group the initial measure of family and social adjustment was obtained from the probation officer in whose legal jurisdiction the probationer resided -- that is, the probation officer who would have continued to supervise the probationer were he not assigned to a volunteer. All other measures of family and social adjustment of treatment group members, as perceived by counselors, were obtained from the volunteers themselves.[7] Regarding social adjustment, the same questionnaire responded to by counselors was self-administered to the probationer's school teachers at 3-months intervals.[8] If he was not in school at the time, the only measure of general social adjustment was obtained from his counselor.

The level of involvement in "delinquent" behavior both prior to and during the probationary experience was determined by

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[7] Initial measurements of family and social adjustment of volunteer-counseled probationers were obtained from probation officers because it was felt that they had more complete familiarity with the probationer's behavior at this time.

[8] These 3-months intervals do not correspond with the intervals used for other data. Data were obtained from the probationers' teachers for all subjects during September, December, March, and the end of May (this last measurement interval encompasses two weeks less than a 3-month interval). The first measurement was made at the first standard interval after the subjects' inclusion in the study. The last measurement was obtained no longer than one month after the probationer's termination.

utilizing data gathered from police, Juvenile Hall (a detention facility), and court files. These three sources yielded four kinds of official indicators of involvement in delinquency: (1) police "contacts,"[9] (2) violations of the terms and conditions of probation,[10] (3) unofficial handling, and (4) informal adjustment. Of course a great deal of overlap was found in the records, but it was necessary to scrutinize all record sources since no single file of records contained accounts of all instances of official action taken upon alleged instances of delinquent behavior involvement.

The index of official delinquency involvement is an index of the number of offenses which a probationer was alleged to have committed. Thus, this is an index of officially recorded delinquent behavior. In developing this scale, the records were examined for all official action taken against the probationer and in each case the offense and the date of its alleged occurrence were recorded. Multiple references to the same offense were eliminated. (Again, several offenses on the same date were considered as one offense.) The total number of delinquent acts

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[9] Police contacts were defined as the existence in police and Sheriff's Department files of unofficial record of police investigation of an incident in which the probationer was alleged to have been involved. The research staff was given access to the files of the Adams County Sheriff's Department and each municipal police department.

[10] Violations of the terms and conditions of probation are stated in a "Petition for Revocation or Modification of Probation," and the court determines (after conference with the probationer, his counselor, and family) prior to filing the petition, whether or not there is sufficient evidence to support the allegations.

alleged by the formal agencies of social control to have been committed by the probationer was calculated, yielding an index of officially recorded delinquent behavior. This index was utilized to determine each probationer's level of officially recorded delinquent behavior both prior to and during probation. Thus it is an index of delinquent involvement considered by the court and the police to warrant at least "unofficial" handling.

A second index of officially recorded delinquent involvement was constructed using police and Sheriff's Department investigation reports. This is an index of police contacts with each probationer during the one-year period prior to inclusion in the study and during each 3-months interval thereafter until termination. Put otherwise, it is an index of police contacts which did not result in court referral. The level of delinquency involvement prior to probation was time-adjusted in that the records were examined for a period one year prior to the date that each subject was included in the study. Police records of "contacts" were examined only in the particular municipality within which the subject resided and in the Sheriff's Department.

One other measure of behavioral adjustment was made: academic adjustment. Two separate indicators were used. (1) When a probationer was in school, all his teachers were asked to evaluate his academic adjustment at 3-months intervals. (2) The probationer's grade point average (GPA) was calculated (utilizing school records) for each semester during his inclusion in the study.

Measurements of activities operationalized as attitudes were obtained from the probationer upon inclusion in the study, at each 3-months interval thereafter, and upon termination of probation. A modified version (the 45-item scale) of the Gough and Peterson Socialization Scale was self-administered to probationers at the first and last intervals. At each 3-months interval between the first and last measurements, three subscales of the Gough and Peterson scale were self-administered. Srole's 5-item Anomy Scale was self-administered to probationers at the 3-months intervals indicated above.

Authority. Measurements of the probationer's perception of the extent to which the role of his counselor was an authoritarian one were obtained only at the time the probationer was terminated.

Reference Groups. Members of the probationer's peer group were determined by asking the probationer (via questionnaire) to list the persons with whom he typically associates in various social situations -- upon his inclusion in the study, at 3-months intervals thereafter and at the time of termination. His counselor was asked to list his friends at the same intervals. The probationer's teachers also were asked to list his friends -- but at the fixed 3-months intervals.[11]

[11] Reasoning that peer group composition for juveniles remains relatively stable over a period of a few weeks, the friends listed by teachers were included in the peer group of the probationer at the closest interval measurement during which other members of his peer group were indicated. This meant that the time at which data were obtained from teachers could vary no more than one and

The level of delinquent behavior involvement of the probationer's peer group (as indicated by official records) was calculated for the one-year period prior to the date the probationer was included in the study, and for each 3-months interval thereafter by following the same procedures as described earlier -- those procedures used to determine the level of officially indicated delinquency involvement of study probationers. The only additional records used to indicate delinquency involvement of peer group members were the "active" and "inactive" files of the court. The active files contain records of juveniles currently on probation whereas the inactive are records of juveniles on probation in the past.

Thus an index of the total number of separate involvements in delinquent behavior, as indicated by official records, was constructed. The index contained a frequency distribution of the total number of separate offenses alleged to have been committed by members of the probationer's peer group during the one-year period prior to the probationer's inclusion in the study and during each 3-months interval thereafter. This index was used to determine the level of delinquent involvement by the probationer's peer group.

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one-half months from the point in time at which other peer group members were listed by the probationer and his counselor. Also, when a peer group member was mentioned at, say the first and third intervals, but not in the second, he was added in the second interval.

At each 3-months interval, the known peer group was taken to have been the probationer's peer group for the past 3-months period, with the exception of the peer group indicated in the initial measurement -- at the time the probationer was included in the study. In this case, the level of delinquency involvement of the probationer's peer group was calculated for one year prior to the date that the probationer was included in the study.

A second index was used in conjunction with the above index to determine the level of delinquent involvement by a probationer's peer group. This index is the same one used in the case of determining the level of delinquency involvement of probationers -- the police contact index. As was the procedure with study subjects, police records of contacts were examined only in the particular municipality within which the peer group member resided.[12]

These procedures allowed comparison of the probationer's and his peer group's official involvement in delinquency at several time intervals: a one-year period prior to the probationer's inclusion in the study, and during each 3-months interval thereafter until the probationer was terminated.

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[12]The Adams County Sheriff's Department files were not examined for police contacts with peer group members for reasons beyond the author's control.

The Volunteer Program

A description of the design of the study would not be complete without including discussion of the volunteer program being evaluated. What follows is discussion of the recruiting, screening, training, assignment, and supervision procedures used in the volunteer program.

Recruiting. Most of the volunteers in the study were recruited by means of two techniques: advertising and personal appeals at public meetings. Newspapers and radio were the principal media used to inform community adults of the volunteer program in the court. Personal appearances were made by volunteer program staff at the regular meetings of civic and religious organizations. The appeal made was based on the court's need for additional counseling resources (due to excessive caseloads) and the importance of community efforts toward ameliorating the problem of juvenile deliquency.

Screening. Interested adults were encouraged to submit an application to the volunteer program staff. Applications consisted of queries regarding reasons for volunteering, past experiences working with youth, and personal references (in addition to basic demographic data). Initial screening of applicants was based on their application (especially references) and whether or not they had recently been convicted of a felony (as determined by making a records check through the Adams County Sheriff's

Department).[13] Additional screening occurred during pre-service training sessions, based on the applicant's participation. If strong biases and prejudices appeared in the personality of the applicant he was excluded from the program. An applicant was likewise excluded if his participation in the training sessions was sporadic -- that is, if he missed one of the training sessions without justifiable reason.

Training. Volunteers accepted for participation in the program were required to participate in two kinds of training sessions: pre- and in-service.

Pre-service training was conducted in two sessions (of 3 hours each) on successive nights at the Adams County Mental Health Center, and with the assistance of personnel at the Center. The first session was designed to orient the volunteer to both the court programs and services, and to the volunteer program. By means of slides and narrative, the volunteer was oriented to such aspects of court services as types of cases processed (e.g., CHINS and delinquents), procedures through which cases were referred to the court and filed upon, types of court hearings (merits, adjudicatory, dispositional, etc.), dispositional alternatives (jail, fines, foster home, state institutions, etc.), and the provisions of the Colorado Children's Code.

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[13] An applicant was rejected if he had an especially bad driving record, due to the possibility that the life of a probationer might be endangered.

The relationship of the volunteer program to the court's structure and procedures was discussed. The exclusive role of volunteers as dispositional resources was explained and it was emphasized that the volunteer has no legal connection with the court. That is, it was made clear to the volunteer that he is excluded from participation in the "advocacy system of justice" -- from playing a formal role in the court's procedures. His role as a "counselor" was clarified, with stress placed on his relationship with his "area counselor." It was pointed out that the volunteer is directly responsible to his area counselor first and then to the Volunteer Coordinator of the program.

The second training session was focused on the volunteer's relationship with his assigned probationer. A narrative presentation was made by a Psychiatric Social Worker in the Center, covering an introduction to developmental psychology of adolescents as a background for discussing the kinds of problems faced by juveniles which the volunteer might be expected to encounter. No particular theoretical plan of treatment or counseling was offered for adoption by the volunteer. The main focus of the presentation was directed toward increasing the volunteer's ability to understand the kinds of problems encountered by adolescents.

Another part of this training session, led by program staff members, was focused on structural features of the volunteer's relationship with the probationer to be assigned to him; that is, his role as "counselor" of the probationer. Each volunteer was

encouraged to interact with other volunteers and to inform his area counselor of his work with the probationer and especially of infractions of terms and conditions of probation. An important part of this second training session was the use of role-playing to enhance the volunteer's ability to understand the problems and viewpoints of probationers in certain problem situations.

In-service training was provided for volunteers through monthly group meetings. Volunteers were grouped (about 10 persons in each group) primarily according to geographical location of residence. An effort was made, whenever possible, to keep a volunteer in the group of which he was a member during pre-service training. This was done because of the emphasis placed on group participation in the in-service training sessions. The aim of these in-service training sessions was to bring group resources (in the form of ideas and suggestions) to bear upon situational features of volunteers' relationships with probationers.

Infrequent formal sessions were held at the Adams County Mental Health Center, during which visual aids and speakers were utilized to expose volunteers to various treatment methods and techniques. However, no attempt was made to encourage volunteers to employ such techniques. The aim of these sessions was to stimulate discussion of the kinds of counseling techniques which the volunteers were capable of employing and to increase their understanding of the problems of youth.

Assignment. Volunteers were assigned to probationers primarily on the basis of two criteria: (1) geographical propinquity of

residence, and (2) availability of a volunteer for assignment at the time a juvenile was granted probation. No conscious attempt was made by program staff to "match" volunteers with probationers. This was highly unlikely since the pool of available volunteers was constantly small due to the requirement of geographical propinquity. The most likely possibility of a "selection bias" is that a decision was made in some cases not to assign a volunteer to a particular juvenile presently being placed on probation. For example, in a few instances program staff members felt that the volunteer under consideration for assignment to a particular probationer would be unable to "handle" the juvenile -- that the probationer was judged to have possessed sufficient manipulative skills to prohibit the development of an affective relationship.

Supervision. Volunteers were assigned to the probation officer in whose geographical jurisdiction the probationer assigned to the volunteer resided. The area counselor's supervision of the volunteer consisted of the regular monthly meeting, in addition to the encouraged monthly contacts. Area counselors sometimes offered the volunteer suggestions as to how he might handle particular situations, and in a few instances, insisted upon a particular method of dealing with a problematic situation.

The area counselor frequently consulted with the Volunteer Coordinator of the program regarding volunteer-probationer relationships and a successful attempt was made to coordinate the content and activities of group meetings under the supervision of

each of the three area counselors.

Demographic Characteristics of Volunteers and Probation Officers. The 40 volunteers ranged from 22 to 54 years of age. Thirty-five per cent were between 25-29 years, 15 per cent were 30-34, 17 per cent were 45-49, 13 per cent were 50-54, 10 per cent were 35-39, and 10 per cent were between 22 and 25 years of age. Eighty per cent were married, 15 per cent were single, and 5 per cent were divorced. Seventy-one per cent were of Prostestant religious affiliation, 23 per cent were Catholic, and 6 per cent were Jewish. None of the volunteers was classified as "lower class" according to Hollingshead's Two Factor Index. The percentages in each of the remaining 4 class levels were: I -- 12 per cent, II -- 28 per cent, III -- 40 per cent, and IV -- 20 per cent. Thirty-seven of the volunteers were Anglos and 3 were Spanish Americans. Sixty-eight per cent had prior experience working with youth. Among these 27 volunteers, 46 per cent had previously worked with youth in a volunteer capacity, and 14 per cent had previously worked with youth in an employee capacity.

All three of the probation officers were between 30 and 34 years of age. Two were married and one was single. Two were of Catholic religious affiliation, and one was Prostestant. All three were in Class II of Hollingshead's scale. Two were Anglos and one was Spanish American.

CHAPTER FOUR

FINDINGS: LIKING

Our first hypothesis contains three variables: liking, interaction, and the intervening variable, authority. Discussion of the contents and psychometric properties of the scales utilized to measure liking will precede findings relevant to this variable. In the next chapter, findings relevant to the first hypothesis will be presented.

Liking. Three scales were utilized to measure probationer and counselor liking of each other. All three scales were designed to measure sentiments or feelings of approval (liking) or disapproval which counselors[1] and probationers held for each other. The first scale was administered to both probationers (probationer liking of counselor -- PL-I) and counselors (counselor liking of probationer -- CL-I) and included four items. Examples of the items are: "I enjoy hearing from him." and "I enjoy talking with him about things in general." (See Appendix A, scales #1 and #4 for the complete set of items.) The

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[1] Recall that "counselor" refers both to probation officers and volunteers.

same set of items were responded to by both probationers and counselors. The response set for this scale was: (1) agree, (2) undecided, (3) disagree.[2] The mean scores for all probationers on this scale (PL-1) at the first and last measurement intervals of liking were 10.11 (N = 79) and 9.72 (N = 79). Thus probationer liking of counselors decreased slightly from the first measurement interval to the last. The mean liking score for all counselors on this scale (CL-1) at the first and last measurement intervals of liking were 10.26 (N = 79) and 10.18 (N = 80). Thus counselor liking of probationers decreased slightly between the first and last intervals.

The psychometric properties of this scale were found to be quite adequate. When probationers were the respondents (PL-1), coefficient alphas,[3] at four points in time were .63 (N = 89),[4] .73 (N = 30), .47 (N = 20), and .69 (N = 90). When counselors were the respondents (CL-1), the coefficient alphas were .34 (N = 89), .48 (N = 30), .61 (N = 20), and .57 (N = 90). Thus the scale evidenced better reliability when

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[2]This scale was reversed so that a high score would mean high liking.

[3]Coefficient alpha (Cronbach, 1951) represents an estimate of a scale's correlation with an equivalent test and is sensitive both to a test's length and homogeneity. It is similar to a split-half technique.

[4]The entire study population on which complete data were collected (N = 91) was used for scale analyses.

probationers were the respondents. The homogeneity ratios[5] when probationers were the respondents were .31 (N = 89), .42 (N = 30), .21 (N = 20), and .36 (N = 90), and when counselors were the respondents: .15 (N = 90), .22 (N = 30), .32 (N = 20), and .29 (N = 91). Thus the PL-1 and CL-1 scales possessed good internal consistency.

The second scale utilized to measure liking was a one-item Likert-type scale administered to both probationers (PL-2 -- scale #2) and counselors (CL-2 -- scale #5) simultaneously with the 4-item scale. The item was: "Make a check in the appropriate box which describes your feelings toward (your counselor) (the above named probationer)." Nine responses were provided, ranging from "dislike very much" (value = 1) to "like very much" (value = 9). When probationers were the respondents (PL-2) the mean scores at the first and last measurement intervals were 6.20 (N = 79) and 6.25 (N = 79), and when counselors were the respondents (CL-2) the mean scores at these intervals were: 6.72 (N = 77), and 6.59 (N = 79). Thus probationer liking of counselors increased slightly between the two intervals whereas counselor liking of probationers decreased slightly.

Since this scale contained only one item, the alpha and homogeneity ratio could not be calculated.

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[5] Scott's (1960) homogeneity ratio represents the weighted average interitem correlation within the scale and thus is a measure of the internal consistency of a scale. The ideal value is .33.

The third scale utilized to measure liking was this same Likert scale, but used to measure probationer perception of counselor liking (PPCL -- scale #3) and counselor perception of probationer liking (CPPL -- scale #6). The item was: "Make a check in the appropriate box which describes how you think (your counselor) (the above named probationer) feels toward you." The same response set was provided as above in the cases of PL-2 and CL-2. The mean scores for probationer perception of counselor liking (PPCL) at the first and last measurement intervals were 5.62 (N = 78) and 6.05 (N = 79), and for counselor perception of probationer liking (CPPL), 5.63 (N = 77) and 5.48 (N = 79). Probationers perceived their counselors as liking them more at the last interval than at the first and the reverse was the case for counselors.

We examined the correlation coefficients between the two different kinds of liking measures in order to determine whether the separate scales were measuring the same liking dimension. The correlation coefficients between PL-1 and PL-2 at four points in time were .50 (N = 79), .66 (N = 28), .82 (N = 20), and .74 (N = 75). The correlations between CL-1 and CL-2 at these four points in time were .31 (N = 77), .17 (N = 28), .82 (N = 20), and .45 (N = 79). The magnitude of these correlations suggests that the separate liking scales were measuring the same general liking dimension.

In this chapter, and in the remaining ones, our attention is focused on two kinds of analyses. First we are interested in examining evidence relevant to the theory variables -- in

combined treatment and control groups, and in the separate groups. Second, we shall examine differences between treatment and control groups, since a major aim of our research effort is the comparison between probation officers and volunteer counselors.

Table 4.1 provides the correlation coefficients between the various liking measures for all measurements and in both groups combined (N = 80).

Table 4.1

LIKING

(PRODUCT-MOMENT CORRELATIONS)

COMBINED TIME PERIODS

TREATMENT AND CONTROL GROUPS COMBINED

	PL-1	PL-2	PPCL	CL-1	CL-2
PL-2	.66				
PPCL	.46	.59			
CL-1	.23	.24	.21		
CL-2	.30	.24	.25	.37	
CPPL	.29	.24	.25	.31	.65

To reiterate, PL-1 is the 4-item scale which measures probationer liking of counselors; PL-2 is the Likert scale measure of probationer liking; and PPCL is probationer perception of counselor liking. CL-1, CL-2 and CPPL are measures of the same variables from the viewpoint of counselors. There is a moderate[6] correlation (.23) between probationer and counselor liking as measured by the 4-item scale (PL-1 and CL-1). A similar correlation is found between probationer and counselor liking as measured by the Likert scale (PL-2 and CL-2). An almost identical correlation is observed between counselor perception of probationer liking and probationer liking (CPPL and PL-2). The correlation between probationer perception of counselor liking (PPCL) and counselor liking (CL-2) is likewise moderate (.25). Thus almost identical correlations are found between both counselor and probationer liking of each other and perceived liking and none of these is above .25. Table 4.2 provides the correlations for the separate treatment and control groups.

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[6]Throughout this report correlation values between .05 and .19 will be described as "weak," those between .20 and .49 as "moderate," and those above .50 as "strong." All our tests of significance are two-tailed, when treatment and control groups are compared since we have posited no specific direction. When the theory is being tested our tests of significance are one-tailed since the theory posits the direction of outcomes.

Table 4.2

LIKING

Correlation Coefficients

(Product-moment)

Combined Time Periods

Treatment Group

	PL-1	PL-2	PPCL	CL-1	CL-2
PL-2	.66				
PPCL	.45	.70			
CL-1	.20	.33	.29		
CL-2	.17	.30	.24	.47	
CPPL	.12	.14	.12	.30	.65

Control Group

	PL-1	PL-2	PPCL	CL-1	CL-2
PL-2	.63				
PPCL	.40	.44			
CL-1	.25	.16	.12		
CL-2	.36	.12	.17	.28	
CPPL	.36	.22	.22	.33	.62

Table 4.2 allows us to observe treatment and control group differences in comparison with the overall correlations in Table 4.1. Some noticeable differences are apparent between the two groups. The moderate correlation (.23) observed between probationer and counselor liking of each other as measured by

the 4-item scale (PL-I and CL-I) changes little when the correlation is calculated separately for each group. The overall correlation on the Likert scale, between PL-2 and CL-2 (.24), changes considerably in treatment and control groups. Probationer-volunteer liking shows a higher correlation (.30), though still moderate, while the correlation between probationer and probation officer liking is lower (.12). CPPL was more highly correlated with actual probationer liking in the case of probation officers than was the case with volunteers (.22 vs. .14). Likewise, treatment probationer liking was more highly correlated with perceived counselor liking than was the case for control probationers (.24 vs. .17). Now we shall examine differences between treatment and control groups within each time period.

Table 4.3 gives the mean liking scores for treatment and control probationers and their counselors on the three scales administered to counselors and probationers at the first interval measurement of liking (T_2) -- three months after inclusion in the study.[7] (Recall that no measurement of liking was made at

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[7] Twenty-five pairs of probationers were in the study for only 6 months, 5 pairs were in for 9 months, and 10 pairs were in the study for 12 months. Two pairs of subjects were mismatched on length of time in the study. Thus the treatment and control split in the 9 months group is 5 treatment subjects and 3 control subjects since in the mismatched pairs two 6 months control subjects were paired with two 9 months treatment subjects. Subjects in the study for 5, 8, and 11 months were included in the 6, 9, and 12 months intervals. One pair of probationers was in the study for 15 months. Their last measurement is included in the 12 months interval (T_5) in all analyses in this chapter.

the first measurement interval -- at the time the probationer was included in the study.)

Table 4.3

LIKING

(Mean Scores)

Treatment vs. Control

Three-months Measurement

	PL-1	CL-1	PL-2	CL-2	PPCL	CPPL
Treatment	10.5	10.2	6.6	6.8	5.9	5.8
Control	9.7	10.4	5.8	6.6	5.3	5.5
	N=79 t=-1.77	N=80 t=.49	N=79 t=-2.21*	N=78 t=-.82	N=78 t=-2.13*	N=77 t=-1.10

*p < .05

Volunteer-counseled probationers expressed stronger sentiments of liking for their counselors at the initial 3-months interval than did probation officer-counseled subjects. The difference is significant at the .05 level when liking is measured by the Likert scale (PL-2). Probationer liking as measured by the 4-item scale (PL-1) approaches a significant difference. Treatment probationers likewise perceived their counselors as liking them significantly more than did control subjects (PPCL).

However, no marked differences appear between volunteer and

probation officer liking of their assigned subjects. Table 4.4 gives the mean liking scores at the 6-months interval.[8]

Table 4.4

LIKING

(Mean Scores)

Treatment vs. Control

Six-months Measurement

	PL-1	CL-1	PL-2	CL-2	PPCL	CPPL
Treatment	10.2	10.2	6.5	6.9	6.5	6.0
Control	9.1	9.9	5.5	6.4	5.2	5.1
	N=79	N=80	N=79	N=79	N=79	N=79
	t=-2.05*	t=-.83	t=-2.21*	t=-2.48*	t=-3.26**	t=-3.83**

*p < .05

**p < .01

At the end of 6 months, volunteer-counseled probationers again expressed significantly stronger liking sentiments toward their counselors than did control probationers -- on both PL-1 and PL-2. And treatment probationers differed significantly from control subjects in the extent to which they perceived their counselors as liking them (PPCL). Treatment counselors differed significantly from control counselors in their liking of probationers -- on

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[8] The variable Ns are due to missing data. Whenever 50 per cent or more of the items in a given scale were missing the scale was deleted, and when fewer than 50 per cent of the items were missing the subject's mean score on the items to which he responded was assigned to each of the missing items.

CL-2. In contrast with the 3-months measurement, volunteers at the 6-months interval perceived their probationers as liking them significantly more than did probation officers ($p < .01$). Nine-months interval data are in Table 4.5.

Table 4.5

LIKING

(MEAN SCORES)

TREATMENT VS. CONTROL GROUPS

NINE-MONTHS MEASUREMENT

	PL-1	CL-1	PL-2	CL-2	PPCL	CPPL
Treatment	10.5	10.1	6.8	6.9	6.5	6.0
Control	9.3	9.6	5.9	6.1	5.0	4.7
	N=28 t=-1.50	N=28 t=-.54	N=28 t=-1.18	N=28 t=-2.28*	N=28 t=-3.00**	N=28 t=-3.07**

*p < .05
**p < .01

At the end of 9 months treatment and control probationers still differed noticeably in their counselor-liking although the differences are not significant at the .05 level. As was the case after 6 months, volunteers differed significantly from probation officers in their expression of liking for their probationers on the Likert scale, and both treatment probationers and volunteers perceived more reciprocated liking than did probation officers and their assignees. Both these differences are significant at the .01 level. Table 4.6 contains 12-months data.

Table 4.6

LIKING

(MEAN SCORES)

TREATMENT VS. CONTROL

TWELVE-MONTHS MEASUREMENT

	PL-1	CL-1	PL-2	CL-2	PPCL	CPPL
Treatment	10.7	10.2	7.1	6.4	7.3	5.5
Control	10.1	10.5	6.1	6.5	5.9	5.2
	N=22 t=-.63	N=22 t=.45	N=22 t=-1.04	N=22 t=.22	N=22 t=-1.74	N=22 t=-.53

No significant differences appear between the two groups at the 12-months interval.[9] The most notable difference is in probationer perception of counselor liking (PPCL). Table 4.7 facilitates observation of the liking trend in the two groups (expressed in mean scores) in all time periods simultaneously.

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[9]The Ns here are rather small and any interpretation should be made with caution.

Table 4.7

LIKING

(Mean Scores)

Treatment vs. Control

All Time Periods

Treatment

	T_2	T_3	T_4	T_5
PL-1	10.5	10.2*	10.5	10.7
PL-2	6.6*	6.5*	6.8	7.1
PPCL	5.9*	6.5**	6.5**	7.3
CL-1	10.2	10.2	10.1	10.2
CL-2	6.8	6.9*	6.9*	6.4
CPPL	5.8	6.0**	6.0**	5.5

Control

	T_2	T_3	T_4	T_5
PL-1	9.7	9.1*	9.3	10.1
PL-2	5.8*	5.5*	5.9	6.1
PPCL	5.3*	5.2**	5.0**	5.9
CL-1	10.4	9.9	9.6	10.5
CL-2	6.6	6.4*	6.1*	6.5
CPPL	5.5	5.1**	4.7**	5.2

*$p < .05$

**$p < .01$

Note that the most significant differences between the two groups are found in probationer liking of counselors and probationer perception of counselor liking (PL-1, PL-2, and PPCL). Few differences are observed between volunteer and probation officer liking of their charges (CL-1 and CL-2). The general liking trend is that probationers counseled by volunteers both liked their counselors significantly more and perceived their counselors as liking them significantly more than did probationers counseled by probation officers. A similar but considerably less marked trend was observed among counselors (and only on the Likert scale). Also, volunteers perceived their probationers as liking them significantly more than did probation officers. All these differences were most marked between 3-6 and 6-9 months.

Noticeable trends through time are apparent when the mean scores in Table 4.7 are examined. The difference between treatment and control probationer liking of counselors is present in the first measurement interval, and significance is reached on PL-1. Treatment probationers consistently expressed significantly stronger liking sentiments for their volunteer counselors than did control probationers for their probation officers. The significant differences are immediate and continue through 6 months. After 6 months, the differences are less marked but still present. Both treatment and control probationers show a similar trend in their liking of their counselors through time -- slight decreases after 3 months, and then increases through 12

months. Also, treatment probationer perception of volunteer liking increased after 3 months, remained stable for 6 months, and then again increased. Counselor liking of probationers shows a different trend in each of the groups. Volunteer liking of probationers (CL-2) and volunteer perception of probationer liking (CPPL) both increased or remained stable through 9 months and then decreased; in the control group, probation officer liking of probationers (CL-2) and probation officer perception of probationer liking (CPPL) both decreased through 9 months and then increased. These trends, from both the viewpoints of probationers and counselors, suggest that when liking alone is considered, the impact of volunteers on probationers is immediate and continues through 12 months. The differences between treatment and control probationer liking of counselors are most significant at the end of 3 and 6 months. Considering these observations, it appears that qualitatively better liking relationships occurred in the treatment group through at least 9 months.

Liking Through Time. We have observed changes in liking through time. The question of interest here is whether these differences are significant from one time period to the next. In an attempt to answer this question we compared the differences in mean liking between 3-6, 6-9, and 9-12 months. We calculated the "t" statistic for each comparison. Table 1 in Appendix B provides the comparisons in the treatment group, and Table 2, in the control group. None of the differences is significant at

the .05 or .01 levels in either treatment or control groups.

One plausible explanation for fluctuations in liking through time might be the anticipation of termination of probation. That is, the termination of a juvenile's probationary period might be associated with strong liking sentiments. In order to explore this possibility we compared subjects terminated at the 6- and 9-months intervals with all other subjects who were not terminated at these intervals. We would expect that if getting off probation is associated with liking, then significant differences should appear between those terminated and those who continued on probation. Table 3 in Appendix B gives the mean liking scores and "t" value for the differences between means for both the comparisons. None of the "t" values is significant. Therefore, we reject our proposition that getting off probation might be associated with sentiments of liking. A summary of findings relevant to liking follows.

When we examined the correlations between probationer and counselor liking of each other in combined groups, we observed moderate correlations on both liking and perceived liking. Separation of the groups revealed a stronger correlation in the treatment group between probationer-counselor liking than in the control group. Then, comparison of mean differences on each measure of liking between the two groups revealed that treatment probationers both liked their counselors significantly more and perceived their counselors as liking them significantly more that did control probationers. Volunteers also liked their

probationers significantly more and perceived their probationers as liking them significantly more than did probation officers.

A noticeable time-related trend was observed when we compared treatment and control groups. We found evidence which suggested that volunteers had an immediate impact on probationer liking of them and probationer perception of volunteer liking. It appeared that qualitatively better liking relationships existed in the treatment group than in the control group -- through 9 months. Let us now examine findings relevant to interaction, authority, and the first hypothesis.

CHAPTER FIVE

FINDINGS: HYPOTHESIS ONE

Frequency of Interaction and Liking. Our first hypothesis may be stated in both a static and a dynamic form: (1) that frequency of interaction and liking are correlated, and (2) that as interaction increases, gains in interaction are positively correlated with gains in liking. Prior to examining evidence relevant to this hypothesis we should note that the mean number of interactions between all probationers and counselors for the entire study period was 1.53 per month. Treatment probationers and counselors interacted just over 2 times per month and probation officers interacted with their charges about 1 time per month.[1]

Let us now consider the static part of the hypothesis. Table 5.1 provides the correlation coefficients between all measures of liking and frequency of interaction in both treatment and control groups combined and for the entire study period.[2] It is readily apparent that the relationship

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[1] The relationship between interaction-frequency and length of relationships will be examined shortly in the context of their relationships with liking.

[2] The combined time periods represent cumulative 3-months intervals of interaction. Eighty subjects interacted with their counselor or probationer during the interval from 0-3 months, 80 interacted from 3-6 months, 28 interacted from 6-9 months (since 52 were terminated at the end of 6 months), and 22 (including the two

Table 5.1

LIKING AND FREQUENCY OF INTERACTION

(Product-moment Correlations)

Treatment and Control Groups Combined

Combined Time Periods

	PL-1	PL-2	PPCL	CL-1	CL-2	CPPL
Frequency of Interaction	.09	.13	.06	.04	.17**	.19**
N =	208	208	207	209	206	206

**p < .01

between the frequency of interaction and liking is weak. The strongest correlations (though much too weak to be statistically significant) are found between the two Likert measures of liking (PL-2 and CL-2) and interaction and counselor perception of probationer liking and interaction. The strongest correlations are found when liking and perception of liking are measured from the viewpoint of counselors. The correlation between CL-2 and FRQINT (frequency of interaction) is significant at the .01 level and CPPL correlated with FRQINT is also significant at the .01 level. Since both these correlations are similar in magnitude, it appears that counselors interacted more frequently with those whom they liked.

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subjects who interacted from 12-15 months) interacted from 9-12 months.

Table 5.2

LIKING AND FREQUENCY OF INTERACTION

(PRODUCT-MOMENT CORRELATIONS)

COMBINED TIME PERIODS

TREATMENT GROUP

	PL-1	PL-2	PPCL	CL-1	CL-2	CPPL
Frequency of Interaction	-.03	.04	-.13	.04	.06	.06
N =	106	106	105	105	103	103

CONTROL GROUP

	PL-1	PL-2	PPCL	CL-1	CL-2	CPPL
Frequency of Interaction	-.02	-.03	-.13	.04	.16	.05
N =	102	102	102	104	103	103

Table 5.2 provides the correlation coefficients between liking and frequency of interaction in the separate treatment and control groups and for the entire study period. Separation of the two groups yields no significant correlations. It is only in the control group that a meaningful positive correlation between liking and interaction exists (.16), and only when liking is measured by the Likert scale (CL-2). In both groups probationer perception of counselor liking (PPCL) is negatively correlated with interaction. In fact, 5 out of the 6 relationships involving probationer liking were negative. Both groups of probationers perceived their counselors as liking them more when their interactions were infrequent. We conclude that

there is no support for the hypothesized relationship between frequency of interaction and liking.

We attempted a three-way analysis of variance in order to determine whether frequency of interaction, time period, or kind of counseling (or some combination of these) might account for the variance in liking. We are not satisfied with the analysis since the cell frequency distributions were quite skewed when treatment and control subjects were split on frequency of interaction.[3] (See Table 4 in Appendix B). Four cells had fewer than 5 subjects and one cell had only one subject. Although little confidence can be placed in the analysis because of these small cell frequencies, the results are consistent with the preceding conclusions. Table 4 in Appendix B gives the F-ratios for the direct effects of frequency of interaction, time period, and treatment vs. control groups (counseling) on liking. The F-ratios are extremely small when frequency of interaction is paired with liking, whereas several reach significance when counseling is paried with liking (when liking is measured form the viewpoint of probationers). Only two other F's are significant, and both occur when counselor liking of probationers is measured by the 4-item scale (CL-I). Here it is a combination of counseling and time periods which accounts for the major part of the variance in counselor liking of

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[3] The cell frequencies are based on a split at 1.0 interactions per month. Alternative splits were tried but none improved the distributions.

probationers -- and primarily time period since counseling alone shows no relationship with CL-I. When considering the relationship of these three variables with liking, from the viewpoint of either probationers or counselors, frequency of interaction accounts for little or no variance in liking. For probationers, only one of these variables, kind of counseling appears to affect liking -- and on all three measures of probationer liking.

Now let us examine evidence relevant to the dynamic part of this first hypothesis -- the question of whether liking increases as frequency of interaction increases, and vice versa. A gain score analysis is the most appropriate procedure here since we are technically interested in determining whether increases in liking are correlated with increases in interaction. Thus we are interested in gains or changes in both variables. From the author's perspective, the most adequate measure of gains through time is a residualized gain score (Bohrnstedt, 1969:118-20). The calculation of residualized gain scores is superior to either raw gain or normalized gain scores because the procedure effectively removes or controls for the effect of the first measure on the second. Put otherwise, residualized gain scores partial out a subject's initial score, thus yielding a score of the net increase or gain. The residualized gain is the difference between the observed score at the second interval and the one predicted on the basis of a subject's initial score. It can be thought of as the observed score minus the predicted

one. The formula is $X_2 - X_1(r_{12}\frac{\sigma_2}{\sigma_1})$. That part of the formula to the right of the minus sign is actually the predicted score (the initial score multiplied by the correlation of the second score times the standard deviation of the second divided by the standard deviation of the first).

No standard procedures have been established for measuring change through time utilizing longitudinal data such as have been collected in this study.[4] The procedure we have adopted for these data includes three sets of comparisons. We wish to examine correlated residualized gains in liking and frequency of interaction from 3 to 6, 3 to 9, and 3 to 12 months. The procedure best allows us to examine gains made by the same subjects through time. In the first comparison we examined gains made by all subjects from 3 to 6 months. In the second comparison subjects in the study for only 6 months are exluded since we are interested in gains from 3 to 9 months. Thus this comparison includes all subjects in the study for 9 or more months. It is a comparison of the T_4 minus the T_2 measurements on these subjects. The third comparison involves gains from 3 to 12 months and thus includes only those subjects in the study for 12 or more months. Diagram 5.1 illustrates the three comparisons.

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[4] James A. Davis (1963) succinctly distinguishes "panel" from other research designs and offers a "practical manual" of alternative statistical techniques for panel designs. As Davis points out, a true panel design requires that the same respondents must be subjected to identical measurements at different points in time. The research design employed here actaully more closely approximates a panel design than an experimental one, since what we really have is two "treatment" groups.

Diagram 5.1

Structure of Gain Score Comparisons

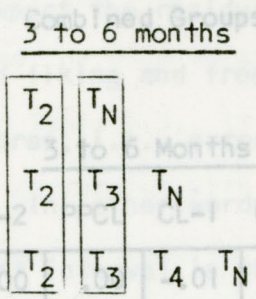


Table 5.3

LIKING AND FREQUENCY OF INTERACTION

Correlated Gains

Combined Groups

3 to 6 Months

	PL-1	PL-2	PPCL	CL-1	CL-2	CPPL	FRQINT
Mean Gain	.00	.00	.00	-.01	.04	.01	.00
r	.04	.12	-.05	.07	-.08	-.04	
N =	79	79	78	79	76	76	80

3 to 9 Months

	PL-1	PL-2	PPCL	CL-1	CL-2	CPPL	FRQINT
Mean Gain	.00	.00	.00	.00	.02	-.03	.00
r	.07	.05	-.27	.11	-.01	.07	
N =	28	28	28	28	27	27	28

3 to 12 Months

	PL-1	PL-2	PPCL	CL-1	CL-2	CPPL	FRQINT
Mean Gain	.00	.00	.00	.00	.02	-.04	.00
r	.03	-.12	-.36*	-.05	-.18	.37*	
N =	20	20	20	20	19	19	20

*$p < .05$

Table 5.3 provides the mean residualized gains[5] made by all subjects and the correlated gains in liking and frequency of interaction between the intervals from 3-6, 3-9, and 3-12 months. We would expect the residualized gains to be "0" since these gains in liking and frequency of interaction are in fact residual scores, i.e., errors about a prediction from a least squares line. In other words, the subject's score at the first measurement interval is the basis for the predicted score at the second interval. The mean gains in Table 5.3 which are greater or less than zero are due to particularly skewed distributions.[6]

Examination of the relationship between each of the liking measures and frequency of interaction reveals only two significant correlations. It is readily apparent that gains in liking are not strongly correlated with gains in interaction-frequency, either from the viewpoint of probationers or counselors. The most interesting correlations are those between perceived liking and interaction. From the viewpoint of probationers (PPCL), gains in interaction-frequency are negatively correlated with their perception of the extent to which their counselor liked them, and the correlations are increasingly stronger through time. In both the 3-9- and 3-12-month intervals, these correlations

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[5] Residualized gains are sometimes converted into z scores, or normalized and presented as standard deviations from the mean (which becomes "0").

[6] See Harris, (1963) for articles focused on Problems in Measuring Change. In the Bereiter article (pp. 3-20) several dilemmas are discussed.

are moderate whereas the correlation is very weak in the 3-6-months interval (-.05). The opposite trend is evidenced in counselor perception of probationer liking (CPPL). The counselors perceived their probationers as liking them more when their interaction increased, or vice versa, through time. One other trend is apparent in Table 5.3. It appears that gains in liking are less positively correlated with gains in interaction, through time -- just the opposite trend to that which Homans suggests. Let us examine these correlations in the separate treatment and control groups. Table 5.4 provides the mean residual gains and correlations within the treatment group.

The treatment group made slight gains in interaction-frequency in all three intervals, the smallest gain occurring in the 3-12-months interval. Positive gains likewise were made on both measures of probationer liking of volunteers in all three intervals. Volunteer liking of probationers shows positive gains in the 3-6-months and 3-9-months intervals and less marked gains in the last interval. Both probationer perception of volunteer liking and volunteer perception of probationer liking show positive gains in all three intervals and the probationer gain increases steadily through time.

Examination of the correlations suggests that increases in probationer liking of volunteers are related to increases in frequency of interaction, although the direction is not constant. The strongest correlations are positive. The opposite appears to be the case with volunteer liking of probationers. The

Table 5.4

LIKING AND FREQUENCY OF INTERACTION

Correlated Gains

Treatment Group

3 to 6 Months

	PL-I	PL-2	PPCL	CL-I	CL-2	CPPL	FRQINT
Mean Gain	.29	.14	.34	.19	.30	.46	.11
r	-.03	.03	-.23	.02	-.17	-.09	
N =	40	40	39	39	37	37	40

3 to 9 Months

	PL-I	PL-2	PPCL	CL-I	CL-2	CPPL	FRQINT
Mean Gain	.23	.01	.37	.21	.29	.47	.13
r	.16	-.02	-.38	.31	.00	.08	
N =	15	15	15	15	14	14	15

3 to 12 Months

	PL-I	PL-2	PPCL	CL-I	CL-2	CPPL	FRQINT
Mean Gain	.34	.43	.58	-.01	.09	.10	.05
r	.29	-.04	-.42	-.44	-.39	.49	
N =	10	10	10	10	9	9	10

Table 5.5

LIKING AND FREQUENCY OF INTERACTION

Correlated Gains

Control Group

3 to 6 Months

	PL-I	PL-2	PPCL	CL-I	CL-2	CPPL	FRQINT
Mean Gain	-.30	-.15	-.33	-.21	-.21	-.41	-.11
r	.18	.28	.12	.11	-.15	-.12	
N =	39	39	39	40	39	39	40

3 to 9 Months

	PL-I	PL-2	PPCL	CL-I	CL-2	CPPL	FRQINT
Mean Gain	-.27	.00	-.42	-.24	-.28	-.55	-.15
r	-.15	.29	-.27	-.39	-.26	-.13	
N =	13	13	13	13	13	13	13

3 to 12 Months

	PL-I	PL-2	PPCL	CL-I	CL-2	CPPL	FRQINT
Mean Gain	-.34	-.43	-.59	.00	-.03	-.16	-.05
r	-.48	-.36	-.42	-.61*	.01	.26	
N =	10	10	10	10	10	10	10

*p < .05

strongest correlated gains are negative and appear in the 3-12-months interval. Gains in probationer perception of volunteer liking are negatively and moderately correlated with interaction and increase in magnitude through time. The opposite trend is apparent in the case of volunteer perception of probationer liking, although the trend is not as strong. Table 5.5 provides the mean residual gains and correlations within the control group.

The control group shows negative gains in interaction-frequency in each of the three intervals, and the largest decrease occurs in the interval from 3 to 9 months. Almost all the liking gains are negative and probationer liking of probation officers and probation officer perception of probationer liking show negative gains in each of the intervals and from the viewpoint of probationers the negative gain is consistently stronger.

The correlated gains between probationer liking of probation officers and interaction show a consistent trend from a positive to a negative direction through time. The correlated gains between probation officer liking of probationers and interaction are predominantly negative and stronger through time -- especially on CL-I in the 3-12-months interval, the correlation value of -.61 being significant at the .05 level. Probationer perception of probation officer liking shows a clear trend from a weak positive correlation, to moderate negative ones in the 3-9- and 3-12-months intervals. The correlated gain between probation officer perception of probationer liking and interaction is weak

and negative in both the 3-6- and 3-9-months intervals and becomes positive and moderate in the last interval.

Three trends are apparent when correlated residualized gains between liking and interaction-frequency are examined within treatment and control groups. First, although none of the correlations is significant, it is apparent that gains in probationer liking of counselors are more positively correlated with gains in interaction in the treatment than in the control group. This observation also holds for volunteer liking of probationers from 3-6- and 3-9-months. Second, in both groups gains in probationer perception of counselor liking shows stronger negative correlations with gains in interaction through time. Third, there is some evidence suggesting that time (or a differential length of exposure to counseling) is related to the quality of interpersonal relationships. This notion receives stronger support in the control than in the treatment group. For both probationer liking of probation officers and probation officer liking of probationers the correlation between gains in liking and frequency of interaction becomes negative and stronger in both the 3-9- and 3-12-months intervals. In the treatment group, this observation holds for volunteer liking of probationers when the 3-12-months interval is compared with the 3-6- and 3-9-months intervals. The observation does not hold for probationer liking of volunteers since the correlated gains become stronger and positive through time on PL-I. Also, in both groups the negative correlated gains between probationer perception of

counselor liking and interaction becomes stronger through time.

Examination of residualized gain scores has not resulted in support for the second part of our first hypothesis. Before we separated treatment and control groups, we observed mostly weak positive correlations between gains or increases in probationer liking of counselors and interaction and mostly weak negative correlated gains between counselor liking of probationers and interaction. When treatment and control groups were separated, we observed stronger negative correlated gains between probationer and probation officer liking of each other and interaction, and between volunteer liking of probationers and interaction. The evidence is inconsistent with Homans' hypothesized relation between interaction-frequency and liking. We saw that both treatment and control probationers perceived their counselors as liking them more when they interacted less. Although the correlations were weaker, the same trend held in the case of probation officer perception of probationer liking in the intervals from 3-6 and 3-9 months.

Thus far we have not found substantive support for either part of our first hypothesis. Liking was not found to be positively correlated with frequency of interaction, and increases in liking were not observed to be positively correlated with increases in interaction, or vice versa. Now we are prepared to examine the effects of Homans' intervening variable, authority, on the relationship between interaction and liking. Discussion of the psychometric properties of our authoritarianism scales follows.

Authority. In Chapter Two we operationalized Homans' concept, authority, as the probationer's perception of the extent to which his counselor attempts to exercise control over him and play an authoritarian role. Two scales were developed. The first was designed as a specific measure of authoritarianism (AUTH). (See Appendix A, Scale #8). For example, one of the 4 items in this scale was: "My counselor expected me to do exactly what he said." Another was: "If my counselor had known of my violating a rule of probation he would have taken some official action." The response set for this scale was: (1) always, (2) sometimes, (3) seldom, and (4) never. The mean score for all subjects was 9.86 (N = 79).[7] Regarding the psychometric properties of this scale, alpha was found to be .57 (N = 89) indicating adequate though not ideal reliability. The scale evidenced adequate internal consistency since the homogeneity ratio was .25 (N = 89).

The second scale (#9) was intended as a general measure of authoritarianism (GENAUTH) and includes the specific 4-item scale above and 5 additional items designed to measure the extent to which the probationer perceived his counselor as playing a "formal" role. We put the questions primarily in the context of the counselor's relationship with the court.

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[7] This scale was reversed so that a low score would mean low authoritarianism. Recall that only one measure of authoritarianism was made -- at the time the probationer was terminated.

For example: "Do you think he (the probationer's counselor) was merely doing a job?" and "Do you think he was more interested in helping you than in being a successful counselor?" This 9-item scale was thus intended to measure probationer perceptions of the extent to which counselors play a general formal authoritarian role. The response set for the five items in this scale which were included with the 4 items in AUTH was: (1) yes, (2) undecided, and (3) no.

The mean score for all subjects in GENAUTH was 18.04.[8] The psychometric properties of this general authoritarianism scale were found to be adequate since alpha was .70 (N = 89) and the homogeneity ratio was .21 (N = 89).

Evidence in support of our contention that the two scales were measuring the same authoritarian dimension was found in their intercorrelation (.84, N = 89). Of course, we would expect a coefficient near this magnitude since the 9-item GENAUTH contains the 4-item AUTH. However, the intercorrelation coefficient between AUTH and the 5 unique items included in the GENAUTH scale was .56 (N = 89). Two levels of analysis are made here in order to, (1) examine the effects of the intervening variable, authority, on liking and interaction in both groups combined and within treatment and control groups, and (2) to specifically examine

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[8]This scale was also reversed in order for a low score to mean low authoritarianism.

differences between treatment and control groups. On the first level, correlations are examined, and on the second, mean differences are compared.

In order to determine the effects of authority upon liking and interaction we shall examine the correlation coefficient between authority and liking, and between authority and interaction. Table 5.6 provides the correlation coefficients among liking, frequency of interaction, and the two authoritarianism scales in combined treatment and control groups. Since the single measure of authoritarianism was made at the time probationers were terminated, authoritarianism is correlated with the last measurement of liking, and the last 3 months of interaction.

Table 5.6

LIKING, FREQUENCY OF INTERACTION AND AUTHORITY

(Product-moment Correlations)

Last 3-months Interval

Treatment and Control Groups Combined

	PL-1	PL-2	CL-1	CL-2	FRQINT
FRQINT	.05	.07	.14	.16	
AUTH	-.39**	-.35**	-.22*	-.36**	.09
GENAUTH	-.63**	-.61**	-.38**	-.48**	.01
N =	79	79	79	78	79

*p < .05

**p < .01

Earlier in this chapter, we observed extremely low correlations between frequency of interaction and liking, therefore we will now concentrate on the correlations between the intervening variable, authoritarianism, and the two major variables in our first hypothesis, liking and interaction.

When the correlations in Table 5.6 are examined, moderate and strong negative correlations are observed between AUTH and GENAUTH and both probationer and counselor liking in combined treatment and control groups. The negative correlation between CL-I and AUTH is significant at the .05 level, and the remainder are significant at the .01 level. Thus both probationer liking of counselors and counselor liking of probationers are negatively correlated with both measures of authoritarianism at significant levels.

Weak positive correlations are observed in Table 5.6 between interaction-frequency and authoritarianism. Following Homans, we expected strong negative correlations since we earlier observed low correlations between frequency of interaction and liking. Let us now separate treatment and control groups in order to see whether these correlations change. Table 5.7 provides the correlations within the two groups.

The strongest negative correlations between probationer liking of counselors and authoritarianism are found in the control group, and the differences are most noticeable on AUTH. All these correlations in the control group are significant at the .01 level. The strongest correlations between interaction and

Table 5.7

LIKING, FREQUENCY OF INTERACTION, AND AUTHORITY

(Product-moment Correlations)

Last 3-months Interval

Treatment Group

	PL-1	PL-2	CL-1	CL-2	FRQINT
FRQINT	-.04	-.01	.13	.09	
AUTH	-.20	-.19	.00	-.35*	.32*
GENAUTH	-.54**	-.54**	-.23	-.51**	.19
N =	40	40	40	39	40

Control Group

	PL-1	PL-2	CL-1	CL-2	FRQINT
FRQINT	-.08	-.10	.01	-.07	
AUTH	-.51**	-.45**	-.37**	-.28	-.04
GENAUTH	-.66**	-.62**	-.45**	-.36**	.14
N =	39	39	39	39	39

*p < .05

**p < .01

authoritarianism are positive and these are primarily found in the treatment group. The .32 correlation between interaction and the specific measure of authoritarianism is significant at the .05 level.

Counselor liking of probationers is likewise negatively correlated with authoritarianism and the correlations are stronger in the control than in the treatment group. Thus, both probationer liking of counselors and counselor liking of probationers are negatively correlated with authoritarianism in both treatment and control groups.

Let us examine these correlations through time; that is, within groups of probationers terminated at 6, 9, and 12 months. This kind of analysis will enable us to examine Homans' hypothesis in the context of length of probationer exposure to counseling. Table 5.8 allows us to examine correlations among liking, interaction, and authoritarianism within the entire groups of probationers terminated at 6, 9, and 12 months.

Table 5.8 suggests that the strongest negative correlations between probationer liking of counselors and authoritarianism are found in the group of probationers termianted at the end of 6 months. The observation also holds among counselors. The most notable differences among the three groups are observed when the two groups terminated at 6 and 12 months are compared.[9] The weak positive correlations between authoritarianism and interaction are quite similar in both groups, and the negative

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[9]We place limited confidence in the statistics in the 9 months group because of the small N. Therefore, we will exclude this group when treatment and control groups are separated.

Table 5.8

LIKING, FREQUENCY OF INTERACTION, AND AUTHORITY

(Product-moment Correlations)

Treatment and Control Groups Combined

Probationers Terminated at 6 Months

	PL-I	PL-2	CL-I	CL-2	FRQINT
FRQINT	.03	.09	.12	.09	
AUTH	-.51**	-.42**	-.15	-.44**	.11
GENAUTH	-.71**	-.63**	-.27*	-.52**	.01
N =	51	51	51	50	51

Probationers Terminated at 9 Months

	PL-I	PL-2	CL-I	CL-2	FRQINT
FRQINT	.57*	.35	.66*	.52	
AUTH	-.42	-.68*	-.20	-.24	.32
GENAUTH	-.66*	-.81**	-.50	-.52	.06
N =	8	8	8	8	8

Probationers Terminated at 12 Months

	PL-I	PL-2	CL-I	CL-2	FRQINT
FRQINT	.04	-.02	-.09	-.10	
AUTH	-.23	-.13	-.38*	-.19	.12
GENAUTH	-.52*	-.47*	-.67*	-.33	.06
N =	20	20	20	20	20

*p < .05
**p < .01

correlations between liking and authoritarianism become weaker through time.

The correlation between liking and authoritarianism appears to be time-related since the two variables show weaker negative correlations in the group terminated at 12 months than in the 6-months group. The correlation between frequency of interaction and authoritarianism does not appear to be time-related and this correlation is weak in all these groups. Let us see if these correlations change when we separate treatment and control groups. Table 5.9 allows us to compare treatment and control groups terminated at the end of 6 months.

It is apparent that stronger negative correlations are found in the control than in the treatment group between probationer liking of counselors and authoritarianism, when probationers terminated at the end of 6 months are compared. The two groups of probationers are most easily distinguished on the basis of their correlations between liking and AUTH. The correlation between either PL-1 or PL-2 and AUTH is not significant in the treatment group whereas both are significant at the .01 level in the control group.

The two groups differ little with respect to the correlations between counselor liking and authoritarianism. However, noticeable differences are apparent when the correlations between frequency of interaction and authoritarianism are observed. In the treatment group positive moderate correlations are observed between both measures of authoritarianism and interaction, while these

Table 5.9

LIKING, FREQUENCY OF INTERACTION AND AUTHORITY

(Product-moment Correlations)

Probationers Terminated at 6 months

Treatment Group

	PL-I	PL-2	CL-I	CL-2	FRQINT
FRQINT	-.09	.00	.13	.02	
AUTH	-.26	-.18	.06	-.43*	.36*
GENAUTH	-.62**	-.54**	-.13	-.54**	.23
N =	25	25	25	25	25

Control Group

	PL-I	PL-2	CL-I	CL-2	FRQINT
FRQINT	.14	.05	-.01	-.11	
AUTH	-.70**	-.62**	-.30	-.41*	-.07
GENAUTH	-.77**	-.69**	-.32*	-.43*	.10
N =	26	26	26	26	26

*p < .05
**p < .01

correlations are weak in the control group.

When we compare the correlations within the separate treatment and control groups with the correlations within combined groups (see Table 5.8), it is apparent that among probationers terminated at 6 months, the strongest negative correlations between authoritarianism and counselor liking are

found in the control group. The overall weak positive correlation between interaction and authoritarianism (Table 5.8) became a moderate positive one in the treatment group and remained weak in the control group. Table 5.10 allows comparison of treatment and control groups of probationers terminated at the end of 12 months.

When we examined the correlations between probationer liking of counselors and general authoritarianism in both groups combined (see Table 5.8) we observed strong negative correlations in the entire group terminated at the end of 12 months. Table 5.10 suggests that slightly stronger negative correlations between probationer liking and authoritarianism are found in the treatment group of probationers terminated at the end of 12 months.

The strongest negative correlations between counselor liking of probationers and authoritarianism are observed in the control group, whereas the correlations between CL-I and both specific and general authoritarianism reach significance at the .01 level.

As was observed to be the case in the 6-months group, stronger positive correlations between interaction and authoritarianism are found in the treatment than in the control group.

Separation of groups terminated at the end of 6 and 12 months into treatment and control groups reveals that strong negative correlations between authoritarianism and probationer liking occurred at 6 months for both treatment and control groups, the latter relationship holding for both measures of authoritarianism. At 12 months this relationship continued only for the treatment

group on GENAUTH. Thus it appears that this negative correlation is relatively stable through time in the treatment group, and becomes weaker through time in the control group. Put otherwise, liking appears to be less negatively correlated with authoritarianism in the latter part (last 3 months) of probation officer-probationer relationships of 12 months duration than is the case in the treatment group. However, when relationships of only 6 months duration are considered, liking is less negatively correlated with authoritarianism in the last three months of volunteer-probationer relationships than is the case in the control group.

Correlations between counselor liking of probationers and authoritarianism varied less between treatment and control groups when subjects were grouped according to relationships of 6 and 12 months duration. Almost no differences were observed when treatment and control groups of 6 months duration were compared. In the 12-months group, somewhat stronger negative correlations were observed between counselor liking and authoritarianism in the control group.

In both the 6- and 12-months groups, we observed mostly moderate positive correlations between frequency of interaction and authoritarianism in the treatment group, whereas these correlations were positive but weaker in the control group.

In general, separation of treatment and control groups by length of relationships has weakened the tenability of Homans' hypothesis. While authoritarianism is still negatively correlated

Table 5.10

LIKING, FREQUENCY OF INTERACTION AND AUTHORITY

(Product-moment Correlations)

Probationers Terminated at 12 Months

Treatment Group

	PL-1	PL-2	CL-1	CL-2	FRQINT
FRQINT	.15	.01	-.28	-.25	
AUTH	.00	-.14	-.12	-.08	.35
GENAUTH	-.49	-.71**	-.61*	-.45	.17
N =	10	10	10	10	10

Control Group

	PL-1	PL-2	CL-1	CL-2	FRQINT
FRQINT	-.50	-.54	.34	-.01	
AUTH	-.43	.06	-.74**	-.27	.02
GENAUTH	-.52*	-.21	-.76**	-.26	.04
N =	10	10	10	10	10

*p < .05
**p < .01

with liking from both the viewpoints of probationers and counselors in each of the three groups, stronger positive correlations between interaction and authoritarianism were observed. We refer, of course, to the treatment group, where these correlations

were mostly moderate. Thus while strong negative correlations have prevailed between authoritarianism and liking, moderate positive correlations were observed between authoritarianism and interaction in the treatment group.[10]

Authoritarianism as an Intervening Variable. The preceding analyses do not bear directly upon the conditional relationship which Homans suggested in the first hypothesis, which was that increases in frequency of interaction and liking are not associated if authoritarianism enters the relationship. A definitive test of the hypothesis requires controlling levels of authoritarianism and examining the relationship between interaction and liking. When authoritarianism is low, the correlation between liking and frequency of interaction should be positive and strong, and when authoritarianism is high, the correlation between interaction and liking should be negative or weak.

Table 5.11 provides the correlation coefficients between residual gains in liking and frequency of interaction among those

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[10] In order to increase our confidence in these findings we also correlated authoritarianism with the last 6 months of interaction and the last two measures of liking summed. These tables are in Appendix B. Tables 5-9 in Appendix B correspond with Table 5.6 - 5.10 here. Examination of these tables will corroborate the preceding findings. In general, the correlations are slightly weaker when the authoritarianism measures are correlated with the last 6 months of liking and interaction.

Table 5.11

AUTHORITARIANISM, LIKING
AND FREQUENCY OF INTERACTION
(Product-moment Correlations
among Residualized Gains)
Combined Groups

Authoritarianism (GENAUTH)

Low

	PL-1	PL-2	PPCL	CL-1	CL-2	CPPL	FRQINT
Mean Gain	.97	.67	.38	.35	.29	.19	-.07
FRQINT	-.08	.02	-.24	.13	-.05	-.03	
N =	43	43	42	44	42	42	

High

	PL-1	PL-2	PPCL	CL-1	CL-2	CPPL	FRQINT
Mean Gain	-1.16	-.80	-.44	-.45	-.28	-.23	.09
FRQINT	.26	.21	.04	.23	.04	.32	
N =	36	36	36	35	34	34	

probationers who perceived their counselors to be low and high on the authoritarianism measure (GENAUTH).[11]

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[11] The two groups were split at the mean. Since the results on AUTH and GENAUTH were quite similar, we present only the correlations on GENAUTH. Gains in interaction and liking from T_1 to T_N are correlated with authoritarianism.

It is readily apparent that authoritarianism does not intervene the relationship between interaction and liking in the manner that Homans suggests. The mean residual gains in liking in the low authoritarianism group are positive, whereas those in the high authoritarianism group are negative. The reverse is the case on frequency of interaction. These correlations suggest that as the frequency of interaction decreases, liking increases in the low authoritarianism group and decreases in the high authoritarianism group. Although none of the correlations is significant, among those probationers who perceived their counselors to be low on the authoritarianism measure, the correlations between PL-1 and PL-2 and FRQINT are very weak. Among those who perceived their counselors to be highly authoritarian the correlations between PL-1 and PL-2 and interaction are moderate and positive. Also, the highly authoritarian counselors appear to have both liked their probationers more and perceived their probationers as liking them more when their interactions were frequent than when they interacted less frequently. Since none of these correlations is significant, and therefore could have been produced by chance, these trends must be considered speculative. It is clear that Homans' hypothesized relation is not supported.

Treatment and Control Group Differences in Authoritarianism.

The preceding correlations do not allow us to compare treatment and control probationer perception of authoritarianism in their counselors. In order to make such a comparison we must look at mean differences between the two groups. Table 5.12 provides the mean scores for treatment and control probationers on both the specific authoritarianism scale and the general one. We calculated the "t" statistic in order to determine significance.

Table 5.12 shows three levels of comparisons between treatment and control groups on each measure of authoritarianism. On the first level, all subjects are included. On the second level, subjects terminated at the end of 6 months are compared, and on the third, the comparison is between treatment and control subjects terminated at the end of 12 months.

A general trend is apparent. Treatment probationers perceived their counselors as being less authoritarian than did control subjects. This is especially apparent when all subjects are compared, and this conclusion holds on both authoritarianism measures. The difference between treatment and control groups is significant at the .05 level when authoritarianism is measured by the specific scale, and at the .01 level when the general authoritarianism scale is used. When the 6- and 12-months groups are compared, the table shows that treatment probationers perceived their counselors as being more authoritarian in the 12-months relationships than in relationships of 6 months duration -- on both scales. This observation holds in the control group

Table 5.12

AUTHORITARIANISM

(Means)

Treatment vs. Control Groups

Specific Authoritarianism (AUTH)

	All T_Ns	6 mo. T_Ns	12 mo. T_Ns
Treatment	9.33	9.47	9.50
Control	10.41	10.38	10.90
	N=40/39 t=-1.89*	N=25/26 t=-1.28	N=10/10 t=-1.17

General Authoritarianism (GENAUTH)

	All T_Ns	6 mo. T_Ns	12 mo. T_Ns
Treatment	8.83	8.87	9.60
Control	11.31	11.62	10.60
	N=40/39 t=-2.71**	N=25/26 t=-2.32*	N=10/10 t=-.61

*p < .05

**p < .01

on the specific authortarianism measure but not on the general measure. When the 6-months groups are compared the difference between treatment and control groups is significant at the .05 level when authoritarianism is measured by the general scale. By the end of 12 months, no differences between treatment

and control perceptions of authority were observed.

In Chapter Four we observed that treatment probationers both liked their volunteer counselors significantly more and perceived their counselors as liking them significantly more than did control probationers. The data also suggested that volunteers liked the probationers significantly more and perceived their probationers as liking them significantly more than did probation officers. In this chapter liking was not found to be correlated with frequency of interaction nor were increases in liking found to be correlated with increases in interaction, or vice versa, in either the treatment or control groups. We then introduced Homans' intervening variable, authority, which was found to be negatively and significantly correlated both with probationer liking of counselors and counselor liking of probationers. The strongest negative correlations between these variables were observed in the control group. Significant negative correlations were observed between liking and authoritarianism but not between interaction and authoritarianism. The latter correlations were extremely weak before treatment and control groups were separated and afterwards much stronger positive correlations were observed in the treatment group.

The correlations between authoritarianism and interaction are rather interesting. Of course, it is not surprising that the two variables are positively correlated given the context of probation. What is surprising, however, is that the positive

Table 5.13

AUTHORITARIANISM AND FREQUENCY OF INTERACTION

(Product-moment Correlations)

Treatment and Control Groups Combined

	Frequency of Interaction		
	1st 3 mos.	2nd 3 mos.	3rd 3 mos.
AUTH	-.05	-.06	.08
GENAUTH	-.14	.08	.01
N =	79	28	20

correlation is much stronger in the treatment than in the control group. In order to further explore this finding, we examined the correlations between frequency of interaction in the first, second, and third 3-months intervals and authoritarianism. The correlations in combined treatment and control groups are presented in Table 5.13. In combined treatment and control groups the correlations between authoritarianism and the first, second, and third 3-months intervals of interaction are negligible. Table 5.14 provides these correlations within the separate treatment and control groups.

It is apparent that in the first three months of interaction, the correlation between interaction and authoritarianism is negligible in the treatment group and then increases noticeably in the next three months of interaction. The opposite trend is apparent in the control group. Although these correlations are

Table 5.14

AUTHORITARIANISM AND FREQUENCY OF INTERACTION

(Product-moment Correlations)

Treatment Group

Frequency of Interaction

	1st 3 mos.	2nd 3 mos.	3rd 3 mos.
AUTH	.03	.24	.32
GENAUTH	-.05	.17	.12
N =	40	15	10

Control Group

Frequency of Interaction

	1st 3 mos.	2nd 3 mos.	3rd 3 mos.
AUTH	.22	.01	.12
GENAUTH	.22	-.05	-.08
N =	39	13	10

not significant the trend is worth noting. The correlations suggest that the relationship between authoritarianism and interaction is stronger than the relationship between liking and interaction.

The data analyzed thus far generally indicate qualitatively better counselor-probationer relationships in the treatment than in the control group when the variables, liking and

authoritarianism, are considered. However, we have not yet introduced the dependent variables. We turn to this analysis in the next chapter.

CHAPTER SIX

FINDINGS: HYPOTHESIS TWO

The Dependent Variables

Our eight dependent variables are: anomy; family, social and academic adjustment; socialization, academic performance; number of police contacts; and number of delinquent acts. Prior to presenting findings relevant to these variables, let us discuss the content and psychometric properties of the scales used to measure each of the variables.

Anomy. Srole (1956) initially conceptualized anomy as a psychological state which refers to general life adjustment. He suggests that anomy might be a function of both social conditions and personality factors.[1] Srole's anomy scale (SA) is used in this research as a measure of general life adjustment. His original scale contains five items; however, only four of the items are used here (scale #10).[2] For example,

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[1] An excellent theoretical discussion of anomy may be found in McClosky and Schaar (1965). Clinard (1964:223-83) provides a complete annotated bibliography of anomy and deviance. Carr (1971) questions the implications of findings using Srole's scale.

[2] Analysis of the scale properties of the 5-item scale revealed extremely low homogeneity ratios, thus the poorest item was deleted.

"Nowadays a person has to live pretty much for today and let tomorrow take care of itself." and "It's hardly fair to bring a child into the world with the way things look for the future." The response set was: (1) agree, (2) disagree. An "agree" response is indicative of high anomy. The mean scores for all probationers at the first and last measurement intervals were 5.41 (N = 79) and 5.86 (N = 80). Thus the general life adjustment of all subjects, as measured by Srole's Anomy scale, improved slightly between the first and last measurements.

This SA scale evidenced adequate psychometric properties. The coefficient of reliability (alpha) at T_1 was .58 (N = 90) and at T_N, .56 (N = 91). The scale's internal consistency is more impressive since the homogeneity ratios at these two intervals were .26 and .33.

Family Adjustment. Two scales designed to measure probationer family adjustment were modifications of scales developed by Conger and Miller (1966:42). The first was administered to probationers (FAPP), and the second, to counselors (FACP). Both scales were designed to measure the same aspects of family adjustment (parent interest and cooperation in the family-court relationship, stability of home environment, and parent understanding of the probationer's capabilities) and each contained three items. The scale administered to probationers (#11) consisted of the following items: "Do you feel that your parents are interested in your relationship with the court and are willing to cooperate?" "Do all the members of your family get

along with each other?" and "Do you feel that your parents accept and understand your capabilities?" The scale was administered to counselors (#12) in the form of dichotomized items: "parent interest and cooperation; lack of interest and cooperation" "stable home; disturbed home environment" and "parents accept and understand child's capabilities; parent pressure." The response set for FAPP was: (1) yes, (2) no; and for FACP: (1) stable home, (2) disturbed home environment (for example).[3] The mean scores on FAPP for all subjects at the first and last measurement intervals were 4.95 (N = 80) and 5.12 (N = 80) and the mean scores on FACP at these intervals were 5.03 (N = 80) and 5.15 (N = 80). Both probationers and counselors perceived improved probationer family adjustment between the first and last measurement intervals.

Coefficients alpha at the two above intervals on FAPP was .29 (N = 91) and .48 (N = 91) and on FACP, .51 (N = 91) and .56 (N = 91). Thus the family adjustment scale evidenced better reliability on FACP than on FAPP. The scale also possessed better internal consistency when counselors were the respondents. The homogeneity ratios at the first and last measurement intervals on FAPP were .13 and .30, and on FACP, .27 and .33. The correlation coefficients between FAPP and FACP through time were .04 (N = 80), .18 (N = 77), .31 (N = 28),

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[3] Both these scales were reversed so that a high score would mean good family adjustment.

.17 (N = 20), and .13 (N = 80). These low correlations suggest that the two scales apparently were measuring different dimensions or perceptions of family adjustment.

Social Adjustment. A scale borrowed from Conger and Miller (1966:40) was utilized to measure probationer social adjustment in his interpersonal relationships with peers and adult authorities. The scale was administered to both the probationer's counselor (SOCP) and his school teacher (SOTP) and included the same 4 items (scale #13) which were presented in a dichotomized format -- for example, two of the items were: "accepts and respects authority; resents and rejects authority" and "well-liked, accepted, gets along with peers; not well accepted, doesn't get along." The first response was given a value of "1" and the second a value of "2."[4] The mean scores for all subjects on (SOCP) at the first and last measurement intervals were 6.45 (N = 80) and 6.66 (N = 80), and on SOTP, 6.32 (N = 62) and 6.60 (N = 59). Thus both teachers and counselors perceived probationers as making slight improvements in social adjustment between the first and last measurement intervals.

The alpha coefficients on SOCP at the first and last intervals were .41 and .35. The scale evidenced somewhat better reliability when it was administered to teachers (SOTP). The range of alpha coefficients in all instances when the teacher

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[4]These scales were reversed in order for a high score to mean good social adjustment.

sample size was at least 20 was between .49 (N = 35) and .70 (N = 22). Under the same conditions, the homogeneity ratio ranged from .19 (N = 35) to .37 (N = 22) on SOTP. The homogeneity ratios for SOCP at the above two intervals were .15 and .12. The correlation coefficients between SOCP and SOTP through time were .21 (N = 62), .23 (N = 25), and .32 (N = 59). Therefore the two scales should not be considered as measuring the same dimension from the viewpoints of both teachers and counselors.

Academic Adjustment. Another scale, borrowed from Conger and Miller (1966:40-41), was utilized to measure academic adjustment and was administered only to probationers' school teachers. The academic adjustment scale (AA) was designed to measure general probationer adjustment in the context of the classroom. The scale contained 6 dichotomized items, including such items as the following: "works up to capacity; underachieving," "cooperative; uncooperative" and "good attitude toward school; poor attitude toward school." The first response alternative was given a value of "1" and the second response, a value of "2".[5] The mean scores for all subjects on AA at the first and last measurement intervals were 8.76 (N = 62) and 9.00 (N = 59). In general, teachers perceived probationers as improving slightly in their academic adjustment between the two intervals.

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[5]This scale was reversed in order for a high score to mean good adjustment.

The range of alpha coefficients for AA in all instances when the teacher sample size was at least 20 was from .71 (N = 24) to .87 (N = 35). The homogeneity ratios ranged from .29 (N = 24) to .48 (N = 35) under the same conditions.

Socialization. The frequently used 45-item Gough and Peterson Socialization (SO) Scale (Gough and Peterson, 1952) was administered to probationers at the first and last measurement intervals. This scale (#15) is based on interactional and role-taking theory of delinquent behavior and has proved valid for forecasting asocial behavior among children, severity of asocial behavior, delinquency in other cultures, and certain specific delinquent acts (see Gough, Wenk, and Rozynko, 1965).[6] Here the SO scale is used as a general measure of socialization. Examples of the items are: "Sometimes I used to feel that I would like to leave home." "I seem to do things that I regret more often than other people do." and "I don't think I'm quite as happy as others seem to be." The response set was "true" and "false." Following the key provided by Gough and Peterson (1952: 208-09), responses indicative of poor socialization were coded as "1," and responses indicative of good socialization, as "2." The mean score for all probationers at the first measurement interval was 68.36 (N = 80), and at the last interval, 69.62 (N = 80).

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[6] The psychometric properties of the SO scale need not be presented since its reliability has been well-established.

Probationer socialization, as measured by the SO scale improved slightly between the two intervals.

Academic Performance. A single measure of academic performance was used: grade point average (GPA). This variable is utilized as a specific measure of academic adjustment. The initial mean GPA for all probationers in school was 1.40 (N = 62) and the final mean GPA was 1.15 (N = 38).[7] These mean scores suggest that probationer GPAs decreased noticeably between their first and last measurements.

Police Contacts. Recall that when police records indicated contact with a probationer and the incident did not appear in court records, the event was recorded as a police contact (PC). This variable is intended as a general measure of involvement in delinquent behavior. The mean number of police contacts with all subjects during their first 3 months in the study was .40 (N = 80) and .35 (N = 80) during the last 3-months interval. The decrease in police contacts between these intervals was very slight.

Delinquent Acts. When an alleged delinquent act (DA) appeared in the court records it was recorded as such. This variable is intended as a specific measure of delinquent involvement. The

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[7] GPA is based on the 4-point system. These are the least complete data reported. We experienced considerable difficulty collecting these data, in part because they were collected during the summer. The reduced N at the final measurement reflects our inability to obtain more than one measure of GPA, dropouts, and incomplete school records.

mean number of delinquent acts for all subjects during their first 3 months in the study was .21 (N = 80) and during their last 3 months in the study, the mean number was .20 (N = 80). These mean scores indicate that no negligible change occurred in the mean number of delinquent acts between the first and last 3-months intervals.

Peer Police Contacts. We have suggested that peer group delinquent involvement may intervene the effects of counseling on the behavior and attitudes of study probationers. Police contacts with peer group members (PPC) of study probationers is intended as a general measure of peer group delinquent involvement. The mean number of police contacts with peer group members during the first 3 months of their friend's inclusion in the study was .17 (N = 80) and the mean number during the last 3-months interval was .17 (N = 80), reflecting no overall change between the two intervals.[8]

Peer Delinquent Acts. Delinquent acts alleged by the court to have been committed by peer group members (PDA) is intended as a specific measure of delinquent behavior involvement by friends of the probationer. The mean number of PDAs during the first 3 months of their friend's inclusion in the study was .09 (N = 80) and the mean number during the last 3-months

[8] Of course these scores do not reflect changes made by the same subjects; rather, the changes are between the peer group of the probationer during his first 3 months in the study and his peer group during his last 3 months in the study.

interval was .09 (N = 80), reflecting no change in PDAs from the first interval to the last.

Prior to examining the relationships among the theory variables, let us compare treatment and control groups on the dependent variables.

Differences Between Treatment and Control Groups on the Dependent Variables

Almost without exception, our preceeding comparisons of treatment and control groups have revealed qualitatively better interpersonal relationships in volunteer-probationer relationships than in probation officer-probationer relationships -- taking into consideration the theory variables. The most important question, however, is whether one of the groups realized better adjustment while on probation than did the other group, i.e., whether attitude and behavior changes occurred. We now turn to these dependent or criterion variables in order to answer this question.

Mean differences between the two groups on each of the dependent variables will be examined at two points in time -- the initial (T_I) and final (T_N) measurement intervals. We wish to know whether the two groups differed on the dependent variables at the time they came into the study and at the time they were terminated. For example, if we observe no differences between the two groups on the initial measurements and significant differences on the last measurements, a strong case could be built for whichever method of counseling was employed in the

Table 6.1

ALL DEPENDENT VARIABLES

(Mean Scores and t Test)

Treatment vs. Control

Time Period One

	SA	FAPP	FACP	SOCP	SOTP	AA	SO	GPA	PC	DA
Treatment	5.64	5.03	4.93	6.23	6.35	8.58	68.79	1.17	2.73	1.9
Control	5.18	4.88	5.15	6.68	6.30	8.94	67.93	1.63	2.23	1.6
	N=79 t=1.62	N=80 t=.76	N=80 t=-1.03	N=80 t=-1.85	N=62 t=.18	N=62 t=-.79	N=80 t=.76	N=62 t=-1.47	N=80 t=1.40	N=80 t=1.24

group which evidenced improved attitudes and behavior.

Table 6.1 allows comparison of the mean scores between treatment and control groups on all the dependent variables at the initial measurement interval. None of the differences is significant. The control group shows more favorable family adjustment as percieved by counselors (FACP), counselor perception of social adjustment (SOCP), academic adjustment (AA), grade point average (GPA), police contacts (PC), and delinquent acts (DA).[9] The treatment group evidences more favorable general life adjustment (SA), family adjustment as perceived by the probationers themselves (FAPP), social adjustment as perceived by teachers (SOTP), and socialization (SO). Thus the control group evidences better adjustment on 6 of the 10 measures and the "t" values on these 6 variables appear, on the average, to be higher than the "t" values on the variables on which treatment probationers scored more favorably. Therefore the control group appears to evidence slightly better overall adjustment at this first measurement interval. Table 6.2 provides the mean scores and "t" tests for the T_N measurements.

None of the differences between treatment and control groups is significant at the last interval measurement. However, it appears that the small differences in favor of the control

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[9] Recall that the first measurement of police contacts and delinquent acts covers a one-year period prior to inclusion in the study. Since these are not scale scores, the treatment group evidences a higher level of both general (PC) and specific (DA) delinquent behavior involvement during the one-year interval prior to inclusion in the study.

Table 6.2

ALL DEPENDENT VARIABLES

(Mean Scores and t Test)

Treatment vs. Control

Time Period N

	SA	FAPP	FACP	SOCP	SOTP	AA	SO	GPA	PC	DA
Treatment	6.07	5.20	5.23	6.78	6.52	8.87	70.35	1.16	.28	.20
Control	5.64	5.05	5.08	6.55	6.69	9.15	68.90	1.14	.43	.20
	N=80	N=80	N=80	N=80	N=59	N=59	N=80	N=38	N=80	N=80
	t=1.32	t=.78	t=.70	t=1.04	t=-.78	t=-.57	t=1.27	t=.05	t=-.99	t=.00

group at T_I have shifted to favor the treatment group at T_N. Consider the 6 variables on which the control group scored more favorably at T_I: FACP, SOCP, AA, GPA, PC, and DA. The treatment group scored higher on 3 of these variables at T_N (FACP, SOCP, and GPA) and the difference observed on DA at T_I has disappeared. The treatment group also scored higher at T_N on 2 of the 4 variables on which it scored more favorably at T_I. This analysis does not enable us to draw any definitive conclusions regarding these observations, however. Since none of the differences at T_N were statistically significant, they could have occurred by chance.

Examination of residual gain scores from T_I to T_N should give us a clearer picture of the differences between the T_I and T_N measurements since this procedure controls for initial scores, thus indicating the net gain or increase between the two measurements. Table 6.3 provides the mean residual gains and "t" tests for differences between the gains from T_I to T_N.

Although none of the differences is significant, the residualized gain scores in Table 6.3 indicate that the treatment group realized gains in the direction of better adjustment on 7 of the 10 variables (excepting SOTP, AA, and DA).[10] The control group evidences gains in the direction of better adjustment only on 4 variables (SA, SOTP, AA, and GPA) and on two of these variables (SA and GPA), the treatment group likewise realized gains.

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[10] Negative gains on PC and DA would be in the direction of less delinquent behavior involvement.

Table 6.3

ALL DEPENDENT VARIABLES

(Mean Residual Gains and t Test)

Time Period N minus Time Period I

Treatment vs. Control

	SA	FAPP	FACP	SOCP	SOTP	AA	SO	GPA	PC	DA
Treatment	.03	.03	.09	.15	-.09	-.06	.48	.16	-.08	.01
Control	-.06	-.04	-.10	-.15	.07	.02	-.47	.02	.09	.00
	N=79 t=-.32	N=80 t=.42	N=79 t=.92	N=80 t=1.43	N=59 t=-.78	N=59 t=-.18	N=80 t=1.02	N=38 t=.64	N=80 t=-1.12	N=80 t=.17

These differences between treatment and control groups obviously are not of sufficient magnitude to serve as a basis for building a strong case for the comparative effectiveness of volunteer counseling. Since no statistically significant differences were observed between the two groups on any of the dependent variables, we have not eliminated the possibility that these differences could have been produced by random forces not controlled in this study. However, what these findings do indicate is additional support for the general trend observed throughout this study. We have observed that treatment probationers both liked their counselors significantly more and perceived their volunteer counselors as liking them significantly more than did probationers counseled by probation officers. We also found that volunteers liked their probationers significantly more and percieved their probationers as liking them significantly more than did probation officers. Finally, we observed that treatment probationers perceived their counselors as being significantly less authoritarian than did control probationers.

All these observations have led us to speak of qualitatively better interpersonal relationships between volunteers and probationers than between probation officers and probationers. However, we have found limited evidence supporting the theoretical linkages among the theory variables: liking, frequency of interaction, and authority. Let us now examine the relationships among these variables and the dependent variables.

Hypothesis Two

Homans suggests that if the degree of liking and interaction between persons increases, their activities will tend to become more similar, and vice versa. Recall our assumption that volunteers and probation officers engage in a low level of deviant behavior. Therefore, support for Homans' hypothesis requires finding that probationers show improved adjustment (on the dependent variables) during the course of their relationship with their counselor if liking and frequency of interaction increases, and if authoritarianism does not intervene.

The most appropriate procedure for testing this hypothesis is a gain score analysis since we are interested in whether increases in liking and frequency of interaction are correlated with successful probationary adjustment. In the following analyses the mean residualized gains between the first and last measurements on liking, frequency of interaction, and the dependent variables are correlated with the single interval measurement of authoritarianism which was made at the time probationers were terminated.

Liking and the Dependent Variables. Table 6.4 provides the correlated gains in combined treatment and control groups between gains in liking and the dependent variables. Significant positive correlations appear between gains in probationer liking of counselors and four of the dependent variables: SA, FAPP, SOCP, and SO. Three of the four dependent variables (SA, SOCP, and SO) measure

Table 6.4

LIKING AND THE DEPENDENT VARIABLES

(Product-moment Correlations
Between Residualized Gains)

T_N minus Initial Measurement

Combined Groups

	PL-1	PL-2	PPCL	CL-1	CL-2	CPPL	
SA	.08	.27**	.05	.08	.09	.05	N=79
FAPP	.16	.19*	.16	-.13	-.06	-.12	N=79
FACP	.11	.10	.05	.21*	.16	.18	N=79
SOCP	.35**	.16	.17	.32**	.32**	.14	N=79
SOTP	.05	-.25*	-.14	.08	-.03	.00	N=58
AA	.10	-.16	-.20	.15	.12	.20	N=58
SO	.25*	.18	.18	-.05	.14	.07	N=79
GPA	.07	.01	-.17	.45**	.03	.24	N=37
PC	-.11	-.13	.10	.07	.01	-.06	N=79
DA	-.13	-.18	.03	-.10	.01	-.04	N=79

*p < .05
**p < .01

some aspect of socialization or social adjustment. Gains in counselor liking of probationers appear to be less strongly correlated with gains on the dependent variables than appears to be the case with probationer liking of counselors. Only 3 of the dependent variables (FACP, SOCP, and GPA) are significantly correlated with counselor liking. The strongest relationship between gains in the several measures of both probationer and counselor liking of each other is observed to be with probationer social adjustment as perceived by counselors (SOCP).[11]

Notice that gains in neither probationer perception of counselor liking nor counselor perception of probationer liking appear to be correlated strongly with any of the dependent variables. Table 6.5 provides the correlations between gains in liking and the dependent variables within the treatment group. Moderate correlations are observed between gains in PL-1 and SA (N = 39), in PL-2 and SA (N = 39), and in PL-1 and SOCP (N = 40).

The negative correlations between gains in PL-1 and PL-2 and DA do reach significance at the .05 level. Counselor liking of probationers shows mostly weak correlations with the dependent variables. CL-1 is correlated with GPA at the .01 level (N = 18) and CPPL's correlation with GPA is likewise

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[11] We are making no attempt to argue causality in any of these relationships; rather, we are only demonstrating association.

Table 6.5

LIKING AND THE DEPENDENT VARIABLES

(Product-moment Correlations
Between Residualized Gains)

T_N minus Initial Measurement

Treatment Group

	PL-1	PL-2	PPCL	CL-1	CL-2	CPPL	
SA	.32*	.38**	.28*	.14	.11	.16	N=40
FAPP	.34*	.22	.01	-.21	-.06	-.28	N=40
FACP	.05	.15	.02	.11	.07	.06	N=40
SOCP	.35*	.26*	.15	.27*	.25	.05	N=40
SOTP	.13	-.17	-.13	.05	-.07	-.08	N=30
AA	.21	-.02	-.23	-.02	.08	.15	N=30
SO	.16	.09	.10	.03	.30*	.17	N=40
GPA	.04	.17	-.03	.53**	.16	.47**	N=18
PC	-.16	-.18	.20	.08	-.08	-.26*	N=40
DA	-.30*	-.30*	.07	-.07	.05	.11	N=40

*$p < .05$
**$p < .01$

Table 6.6

LIKING AND THE DEPENDENT VARIABLES

(Product-moment Correlations
Between Residualized Gains)

T_N minus Initial Measurement

Control Group

	PL-1	PL-2	PPCL	CL-1	CL-2	CPPL	
SA	-.09	.17	-.17	.03	.05	-.06	N=39
FAPP	.02	.15	.27*	-.08	-.10	-.05	N=39
FACP	.13	.04	.01	.27*	.17	.30*	N=39
SOCP	.33*	.05	.10	.31*	.30*	.08	N=39
SOTP	.04	-.32*	-.10	.15	.07	.13	N=28
AA	.04	-.28	-.18	.27	.19	.27	N=28
SO	.32*	.26*	.22	.17	-.12	-.10	N=39
GPA	.08	-.09	-.32	.41*	-.15	.04	N=19
PC	-.06	-.08	.12	.10	.17	.13	N=39
DA	-.02	-.08	-.13	-.14	.06	.01	N=39

*p < .05

significant (N = 17). Thus it is primarily probationer liking of volunteers which is most significantly correlated with the dependent variables, and the strongest relationships are with SA, FAPP, SOCP, and DA. These correlations within the control group are in Table 6.6.

Probationer gains in liking of probation officers shows a moderate correlation with gains in SOCP which is significant at the .05 level (N = 39). Gains in probationer liking of probation officers shows moderate correlations with SO and the correlation between both PL-1 and PL-2 and SO are significant (N = 39). Gains in CL-1 and CL-2 are moderately correlated with FACP and SOCP. The correlated gains between probationer and probation officer liking of each other and the dependent variables are about equal in strength and the strongest positive relationships are with SOCP and SO.

In comparison with the control group, the treatment group shows slightly stronger correlated gains between probationer and counselor liking of each other and the dependent variables. In both groups the correlations are strongest between probationer liking and the dependent variables and primarily with measures of social adjustment. The strongest relationship between probationer liking and measures of involvement in delinquent behavior appears in the treatment group. Let us now examine the correlated gains between frequency of interaction and the dependent variables.

Interaction and the Dependent Variables. Table 6.7 provides the correlated gains between interaction and the dependent

variables in combined treatment and control groups. Only one of the correlated gains is significant-between interaction and GPA (N = 38). These correlations suggest that gains in frequency of interaction are not correlated with gains in the dependent variables as Homans suggests. (However, we would expect similar findings if authoritarianism intervenes.) Table 6.8 provides the correlated gains between interaction and the dependent variables within treatment and control groups. In the control group the correlated gain between academic adjustment (AA) and interaction is significant at the .01 level and SOCP is correlated with interaction at the .05 level. A distinctively different trend is apparent in the two groups. In the treatment group the correlated gains are predominantly

Table 6.7

FREQUENCY OF INTERACTION AND THE DEPENDENT VARIABLES

(Product-moment Correlations Between Residualized Gains)

T_N minus Initial Measurement

Combined Groups

	SA	FAPP	FACP	SOCP	SOTP	AA	SO	GPA	PC	DA
r	-.07	-.02	.10	.05	-.02	.04	-.13	.27*	-.13	-.15
	N=79	N=80	N=80	N=80	N=59	N=59	N=80	N=38	N=80	N=80

*p < .05

Table 6.8

FREQUENCY OF INTERACTION AND THE DEPENDENT VARIABLES

(Product-moment Correlations
Between Residualized Gains)

T_N minus Initial Measurement

Treatment Group

	SA	FAPP	FACP	SOCP	SOTP	AA	SO	GPA	PC	DA
r	-.06	-.07	.09	-.10	-.11	-.16	-.20	-.35*	-.15	-.13
	N=39	N=40	N=40	N=40	N=30	N=30	N=40	N=18	N=40	N=40

*p < .05

Control Group

	SA	FAPP	FACP	SOCP	SOTP	AA	SO	GPA	PC	DA
r	.12	.06	.13	.29*	.23	.48**	-.04	.33	-.11	-.23
	N=40	N=40	N=40	N=40	N=29	N=29	N=40	N=20	N=40	N=40

*p < .05
**p < .01

negative. Within the control group, the correlated gains are predominantly positive and four reach a moderate level (SOCP, AA, GPA, and DA). These trends simply suggest that gains in frequency of interaction are more positively correlated with gains in the dependent variables in the control than in the treatment group. At this point we do not have an explanation for this finding. Let us now examine the relationship between authoritarianism and the dependent variables.

Authoritarianism and the Dependent Variables. Table 6.9 contains the correlated gains between both the specific and general measures of authoritarianism in combined groups. Since authoritarianism was measured only at the point at which probationers were terminated, the correlation is between the two measures of authoritarianism at T_N and gains in the dependent variables between T_I and T_N. Only three of the

Table 6.9

AUTHORITARIANISM AND THE DEPENDENT VARIABLES

(Product-moment Correlations Between Residualized Gains)

T_N minus Initial Measurement

Combined Groups

	SA	FAPP	FACP	SOCP	SOTP	AA	SO	GPA	PC	DA
AUTH	.08	.10	.15	-.09	.08	-.16	.04	-.13	-.05	-.04
GENAUTH	-.20*	.03	.13	-.19*	.03	-.16	-.06	-.21*	.06	.12
N=	78	79	79	79	58	58	79	39	79	79

*$p < .05$

correlations are significant (SA, SOCP, and GPA correlated with GENAUTH). Thus authoritarianism is not directly related with the dependent variables and therefore it does not appear that it could intervene the liking, interaction, and dependent variable relationships. However, we have not made the critical test, which requires that authoritarianism be held constant while

Table 6.10

INTERACTION, LIKING AND THE DEPENDENT VARIABLES

WITH AUTHORITARIANISM HELD CONSTANT

(Product-moment Correlations
Between Residualized Gains)

Combined Groups

LOW GENERAL AUTHORITARIANISM (GENAUTH)

	PL-1	PL-2	PPCL	CL-1	CL-2	CPPL	FRQINT	
SA	.10	.22	.06	.27*	-.04	-.01	.01	N=43
FAPP	.14	.12	.06	-.12	-.16	-.22	-.01	N=43
FACP	.09	.05	-.01	.20	.19	.10	.02	N=43
SOCP	.26*	.01	.21	.17	.18	.02	-.05	N=43
SOTP	.02	-.26	-.13	.15	.15	.05	-.08	N=30
AA	-.15	-.37*	-.27	.15	.33*	.25	-.25	N=30
SO	.06	-.06	.13	-.14	.05	.08	-.12	N=43
GPA	-.01	-.08	-.46*	.35	.03	.17	.24	N=14
PC	-.09	-.04	.09	.06	.12	.07	-.08	N=43
DA	-.32*	-.14	-.04	-.13	.04	.06	-.06	N=43

*$p < .05$

Table 6.11

INTERACTION, LIKING AND THE DEPENDENT VARIABLES

WITH AUTHORITARIANISM HELD CONSTANT

(Product-moment Correlations
Between Residualized Gains)

Combined Groups

HIGH GENERAL AUTHORITARIANISM (GENAUTH)

	PL-1	PL-2	PPCL	CL-1	CL-2	CPPL	FRQINT	
SA	-.12	.19	-.09	-.14	-.12	.04	-.20	N=36
FAPP	.21	.27	.27	-.15	.05	.01	-.04	N=36
FACP	.26	.25	.19	.28*	.20	.37*	.28*	N=36
SOCP	.39**	.14	.03	.40**	.51**	.27	.24	N=36
SOTP	.19	-.26	-.13	.04	-.27	.00	.15	N=25
AA	.23	-.10	-.15	.16	-.18	.16	.51**	N=25
SO	.45**	.41**	.21	-.01	.24	-.04	-.16	N=36
GPA	.20	.23	-.20	.48*	-.07	.34	.32	N=18
PC	-.16	-.24	.15	.11	-.18	-.30*	-.21	N=36
DA	.01	-.23	.13	-.06	-.05	-.17	-.30	N=36

*p < .05
**p < .01

examining the relationships bewteen both liking and the dependent variables, and interaction and the dependent variables. Table 6.10 provides the correlations among liking, interaction, and the dependent variables when low authoritarianism is present and Table 6.11, when high authoritarianism is present. It is readily apparent that authoritarianism does not intervene the relationships as Homans suggests. In fact, the strongest positive correlated gains are observed when authoritarianism is high.

We have not given any attention to the intervening variable which we have suggested may condition counselor-probationer relationships: the probationer's peer group. Let us do so now.

Peer Group. In order to determine whether general (PPC) and specific (PDA) delinquency involvement among peer group members qualifies the effects of counselor-probationer relationships on the dependent variables, we have examined the correlated gains between PPC and PDA and each of the dependent variables. Table 6.12 provides the correlated gains among these variables in combined groups. It is apparent that the correlated gains between peer delinquency involvement and the dependent variable measurements on study probationers are quite weak. Similar relationships appeared within treatment and control groups.[12]

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[12] We also held the level of peer delinquency involvement constant and examined these relationships. The correlations were quite similar in both low and high delinquency involvement peer groups.

Table 6.12

PEER GROUP DELINQUENCY INVOLVEMENT

AND THE DEPENDENT VARIABLES

(Product-moment Correlations
Between Residualized Gains)

T_N minus Initial Measurement

Combined Groups

	SA	FAPP	FACP	SOCP	SOTP	AA	SO	GPA	PC	DA
PPC	.19	-.08	-.03	-.15	-.04	-.14	-.20	.06	.14	-.01
PDA	.16	-.06	.05	-.09	.09	.03	-.16	.01	-.01	.02
N =	79	80	80	80	59	59	80	38	80	80

We are not satisfied that we have made a fair test of this hypothesis because of the procedures followed in coding the data on peer group members' delinquency involvement. Police contacts and alleged delinquent acts of peer group members were recorded only if the PC or DA occurred during the 3-months interval for which the peer group member was alleged to be a friend of the study probationer. PC's and DA's falling outside that interval were not recorded. In many cases, peer group members had police contacts and delinquent acts both prior to and after the 3-months interval, but none during the interval. Thus this measure of peer delinquency involvement is a quite conservative one and this is especially so since only official records were examined and no self-reported measure was made.

Our examination of the evidence relevant to our second hypothesis has revealed some moderate correlations between liking and the dependent variables -- primarily those measuring different aspects of social adjustment. We observed probationer liking of counselors to be the most important liking variable, and the effect of probationer liking on the dependent variables appeared to be slightly more pronounced in the treatment than in the control group. Also, the correlated gains between probationer liking and measures of delinquent behavior (PC and DA) were weak and negative in combined groups and moderate in the treatment group but weak in the control group.

Nor did we observe strong correlations between interaction and the dependent variables. And authoritarianism was not observed to intervene the theoretical relationships as Homans suggested. We conclude that strong support was not found for the relationships among liking, frequency of interaction, authoritarianism, and the dependent variables. Limited support was found for the relationships among the theory variables in the relationship between liking and the dependent variables and this support must be considered generally weak since the relationship appeared to be substantively significant between liking and only 4 of the 10 dependent variables.

CHAPTER SEVEN

HYPOTHESIS THREE AND CONCLUSIONS

Our third hypothesis concerns our major research aim -- a comparison between community volunteers and probation officers as juvenile counselors. We have compared the treatment and control groups on each of the theory variables. Before considering our final hypothesis, let us summarize the observed differences between these two groups.[1]

Liking. In Chapter Four we observed that probationers counseled by volunteers liked their counselors significantly more after 3 months and also at the end of 6 months. Treatment probationers perceived their counselors as liking them significantly more at the outset and through the end of 9 months. No significant differences appeared between the two groups on measures of probationer liking of counselors in the 9- and 12-months intervals and the significant differences on probationer perception of counselor liking held only through 9 months.

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[1] We have not mentioned any comparisons of the amount of variance on the several variables in the two groups. Very few noticeable differences were found, which suggests that the same things were happening in both groups. Had large differences been observed, the comparability of the two groups would have been diminished.

Volunteers both liked their probationers more than did probation officers and perceived more probationer liking through 12 months, and the differences were significant at the end of 6 and 9 months. Therefore, when probationer liking of counselors, probationer perception of counselor liking, counselor liking of probationers, and counselor perception of probationer liking are considered, it appears that relationships in the treatment group were superior through 9 months and that the differences almost disappeared by the end of 12 months.

Interaction. Volunteers interacted significantly more frequently with their probationers than did probation officers. However, frequency of interaction was not found to be related to either liking or the dependent variables.

Authoritarianism. Treatment probationers perceived their volunteer counselors as being significantly less authoritarian than did control probationers -- on both measures of authoritarianism. Since we had only one interval measurement of authoritarianism (made at the time probationers were terminated) our comparisons between treatment and control groups were between subgroups of probationers terminated at the end of 6, 9 and 12 months, and the subgroups terminated at the end of 9 months were too small to make a reliable comparison. The data did suggest that differences between treatment and control probationer perception of authoritarianism were more pronounced in relationships of shorter duration.

Dependent Variables. We observed no significant differences between treatment and control groups on any of the dependent variables at either the first interval measurement or the last one. Examination of residualized gain scores between T_1 and T_N revealed that the treatment group made slightly higher gains or improvements between the two intervals. However, these differences were not of sufficient magnitude to eliminate the possibility of their having been produced by chance alone.

Since differences between the two groups on the dependent variables lacked significance (and therefore possibly produced by chance) there is no evidence to support the presumed (or hypothesized) greater effectiveness of volunteers than probation officers as counselors of juvenile probationers. However, in general we observed qualitatively better interpersonal relationships between volunteers and their probationers than between probation officers and their charges, i.e., on the liking and authoritarianism variables.

Authoritarianism was found to be weakly correlated with interaction, negatively (and significantly) correlated with liking, and negatively correlated with residualized gains on the dependent variables. However, when the level of authoritarianism was held constant, the positive relationships between liking and the dependent variables were strongest when high authoritarianism was present. Although the dynamics of the authoritarianism variable are unclear, it appears that counselor-probationer relationships benefited from "moderate" levels of authoritarianism since liking appeared to have a relatively strong relationship

with the dependent variables.

The data suggested that the differences between the two groups on liking and authoritarianism were immediately present -- at the beginning of counselor-probationer relationships -- and held through 6 or 9 months after which the differences became minimal or disappeared altogether. Significant differences between the two groups of probationers' liking of counselors disappeared after 6 months, and on probationer perception of counselor liking, the significant differences disappeared after 9 months. A similar trend was observed on authoritarianism. Differences between probationer perception of authoritarianism in their counselors were significant among probationers terminated at 6 months but not among those terminated at 12 months. The differences between volunteer and probation officer liking of probationers and perception of probationer liking are significant through 9 months and almost disappeared by the end of 12 months. While we cannot make an unequivocal statement as to the optimum length of exposure to counseling, the data suggest that the differences between types of counseling began to disappear after 6 months and were almost nonexistent by the end of 12 months.

The results of this research cannot be taken to mean that volunteers are the most successful counselors of juveniles on probation. The evidence we examined suggested that the probationary experience of the two groups was quite similar and that the observed differences between the two groups could have been

produced by chance alone. We did find evidence of substantive importance which suggested that the interpersonal relationships between probationers and volunteers appeared to be qualitatively better (as defined by our theoretical framework) than probationer-probation officer relationships, but this appeared to have little effect on probationers' feelings of anomy, family adjustment, school adjustment, etc.

It is important that the reader realize that whatever meaning is taken from these findings may be applied conclusively only to the population studied. Application to any other population must be considered propositional since these findings are not generalizable beyond the population studied with any known degree of accuracy. There are other grounds for making such inferences, but it is clear that the probability of error in such inferences cannot be stated.

Theory Hypotheses. We have examined data relevant to Homans' theoretical linkages with the aim of establishing association among the theory variables. Association was attempted on two levels of analysis: among raw scores, and among gains or increases in scores.

Our first hypothesis suggested that liking and frequency of interaction are correlated, or, stated otherwise, that increases in one are associated with increases in the other. Examination of the correlations among our measure of liking led us to conclude that only a weak correlation was found between the two variables

-- so weak that it could have been produced by chance.[2] We drew a similar conclusion after examining the correlations between increases (or residualized gains) in each of the variables. Our first hypothesis also suggested that strong association would not be found between liking and interaction if authority entered the relationship. We observed a weak relationship between authoritarianism and interaction and a negative one between authoritarianism and liking. In a more precise and appropriate test of the hypothesis we examined the correlation between gains in liking and interaction while controlling for authoritarianism. The relationship was weak both when authoritarianism was high and low. We concluded that there was little evidence supporting our first hypothesis.

Our second hypothesis suggested that increases in liking and interaction are associated with behavior and attitude change -- if authority does not intervene. We found increases in liking to be associated with increased behavioral and attitude change in probationers in the direction of improved social adjustment. Although the relationship was of less than impressive magnitude, it was the theoretical relationship for which the strongest support was found. The association between both increased interaction and authoritarianism with the dependent variables

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[2] Consideration should be given to the issue of whether the research situation of counselor-probationer relationships meets the requirements for a fair test of Homans' hypothesis concerning frequency of interaction, given: 1) the low frequency of interaction between counselors and probationers, and 2) the limited variance observed in this variable. These conditions may constitute a partial reason for failing to prove Homans'

was observed to be weak. In a more precise test of the hypothesis we found generally weak and unclear relationships between interaction and the dependent variables when authoritarianism was held constant. However, it was in the case of high authoritarianism when the strongest relationship between liking and the dependent variables was observed. We interpreted these rather complex findings as suggesting that the presence of moderate levels of authoritarianism in probationer-counselor relationships was not disadvantageous. Given our operationalization of authoritarianism (see scales #8 and 9), this conclusion seems tenable. Also, reason dictates that the nature and kinds of problems experienced by probationers in the study could perhaps be ameliorated by some "authoritarian" direction or counseling.

We do not feel that we have made a complete test of Homans' theoretical notions. Our findings should be considered relevant to his notions but only under the conditions in which our examination of his theoretical linkages was made -- in the context of the probation experience. Our research is incomplete, primarily in that we did not take structural features surrounding the interpersonal relationship between probationers and counselors into account. A larger part of the context of probation needed to be examined, especially the nature of probation itself and

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hypotheses involving frequency of interaction.

certain "constraints" placed on probationer-counselor relationships by virtue of each of their relationships with the court.

The direct impingement of such other interpersonal relationships as those with parents, peers, school authorities, and police also needed to be examined in the context of the probationary experience. Our evidence of the impact of these relationships on the counselor-probationer relationship was fragmented and rather indirect.

Other kinds of analyses might illuminate or clarify the preceeding findings. Cluster analysis (specifically, O-type analysis) of the types of probationers who appeared to be most receptive to the two kinds of counseling employed in this project might suggest variables which should be taken into consideration when "matching" probationers with counselors. Also, the employment of discriminant function analysis might result in more specific understanding of the dynamics of the variables considered. The procedure provides information as to how well the two groups can be differentiated on the basis of the variables examined, and indicates which variables are playing a critical part.

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APPENDIX A

SCALES AND INSTRUMENTS

Scale #1 -- LIKING: Probationer Liking of Counselor (PL-1)

Items: 1. I enjoy hearing from him.

2. I enjoy talking with him about things in general.

3. I think he is the kind of person who enjoys life most of the time.

4. I like to discuss serious general problems with him.

Responses: (1)* Agree, (2) Undecided, (3) Disagree

Scale #2 -- LIKING: Probationer Liking of Counselor (PL-2)

Item: Make a check in the appropriate box which describes your feelings toward your counselor.



1	2	3	4	5	6	7	8	9
Dislike very much		Dislike somewhat		Neutral		Like quite a lot		Like very much

Scale #3 -- LIKING: Probationer Perception of Counselor Liking (PPCL)

Item: Make a check in the appropriate box which describes how you think your counselor feels toward you.

Responses: See scale #2.

*Response values are in parentheses.

Scale #1 -- LIKING: Probationer Liking of Counselor (PL-1)

Items: 1. I enjoy hearing from him.

2. I enjoy talking with him about things in general.

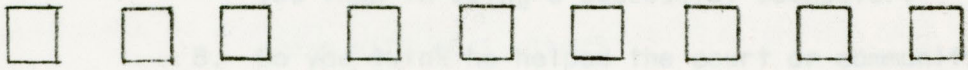
3. I think he is the kind of person who enjoys life most of the time.

4. I like to discuss serious general problems with him.

Responses: (1)* Agree, (2) Undecided, (3) Disagree

Scale #2 -- LIKING: Probationer Liking of Counselor (PL-2)

Item: Make a check in the appropriate box which describes your feelings toward your counselor.



1	2	3	4	5	6	7	8	9
Dislike very much		Dislike somewhat		Neutral		Like quite a lot		Like very much

Scale #3 -- LIKING: Probationer Perception of Counselor Liking (PPCL)

Item: Make a check in the appropriate box which describes how you think your counselor feels toward you.

Responses: See scale #2.

*Response values are in parentheses.

Scale #4 -- LIKING: Counselor Liking of Probationer (CL-1)

Responses and Items: See scale #1.

Scale #5 -- LIKING: Counselor Liking of Probationer (CL-2)

Item: Make a check in the appropriate box which describes your feelings toward the above-named probationer.

Response: See scale #2.

Scale #6 -- LIKING: Counselor Perception of Probationer Liking (CPPL)

Item: Make a check in the appropriate box which describes how you think the above-named probationer feels toward you.

Responses: See scale #2.

Scale #7 -- FREQUENCY OF INTERACTION.

All counselors were asked to record each unit of interaction which they had with their probationer(s) on "contact cards" provided for them. Among the pieces of information requested on the card was the date on which the interaction took place.

Scale #8 -- AUTHORITARIANISM: Specific Measure (AUTH)

Items: 1. My counselor expected me to do exactly what he said.

2. My counselor acted toward me as if he were my boss.

3. If my counselor had known of my violating a rule of probation he would have taken some official action.

4. If I had gotten into serious trouble my counselor would have had my probation revoked (taken away).

Responses: (1) always, (2) sometimes, (3) seldom, (4) never

Scale #9 -- AUTHORITARIANISM: General Measure (GENAUTH)

Items: 1-4. See scale #8 for these items.

5. Do you think he was interested in you personally?*

6. Do you think he was merely doing a job in counseling you?

7. Do you think he was more interested in helping you than in being a successful counselor?*

8. Do you think he helped the court or community more than he helped you?

9. Do you think he was less interested in his relationship with you than in his relationship with the court or other counselors?

Responses: (1) yes, (2) undecided, (3) no

Scale #10 -- ANOMY (Srole Anomy Scale -- SA)

Items: 1. These days a person doesn't really know whom he can count on.

*Reversed items

2. Nowadays a person has to live pretty much for today and let tomorrow take care of itself.

3. In spite of what some people say, the lot (situation) (condition) of the average man is getting worse, not better.

4. It's hardly fair to bring a child into the world with the way things look for the future.

Responses: (1) agree, (2) disagree

Scale #11 -- FAMILY ADJUSTMENT: Probationer Perception (FAPP)

Items: 1. Do you feel that your parents are interested in your relationship with the court and are willing to cooperate?

2. Do all of the members of your family get along with each other?

3. Do you feel that your parents accept and understand your capabilities?

Responses: (1) yes, (2) no

Scale #12 -- FAMILY ADJUSTMENT: Counselor Perception (FACP)

Items: (1) Parent interest and cooperation

(2) Lack of interest and cooperation

---

(1) Stable home

(2) Disturbed home environment

(1) Parents accept and understand child's capabilities

(2) Parent pressure

Scale #13 -- SOCIAL ADJUSTMENT: Teacher (SOTP) and Counselor (SOCP) Perception

Items: (1) Accepts and respects authority

(2) Resents and rejects authority

---

(1) Active group participation

(2) Little group participation

---

(1) Well-liked, accepted, gets along with peers

(2) Not well-accepted, doesn't get along

---

(1) Sufficient recognition

(2) Attention-seeking

Scale #14 -- ACADEMIC ADJUSTMENT: Teacher Evaluation (AA)

Items: (1) Realistic, planful goals

(2) Unrealistic goals

---

(1) Works up to capacity

(2) Underachieving

---

(1) Shows effort to improve

(2) Lacks effort to improve

---

(1) Conscientious, dependable

(2) Undependable, irresponsible

(1) Cooperative

(2) Uncooperative

---

(1) Good attitude toward school

(2) Poor attitude toward school

Scale #15 -- SOCIALIZATION: Gough and Peterson Socialization Scale (SO)

Items:

1. Life usually hands me a pretty raw deal.
2. A person is better off if he doesn't trust anyone.
3. Sometimes I used to feel that I would like to leave home.
4. If the pay was right, I would like to travel with a circus or carnival.
5. I would do almost anything on a dare.
6. As a youngster in school I used to give the teachers lots of trouble.
7. Even when I have gotten into trouble I was usually trying to do the right thing.*
8. My parents never really understood me.
9. My home life as a child was less peaceful than that of most other people.
10. I think I am stricter about right and wrong than most people.*

11. Even the idea of giving a talk in public makes me afraid.*
12. It is very important to me to have enough friends and social life.*
13. I never worry about my looks.
14. I hardly ever get exicted or thrilled.
15. My parents have often disapproved of my friends.
16. My home life was always happy.*
17. I often act on the spur of the moment.
18. I seem to do things that I regret more often than other people do.
19. I would rather go without something than ask for a favor.
20. I have more than my share of things to worry about.
21. I go out of my way to meet trouble rather than try to escape it.
22. When I meet a stranger I often think that he is better than I am.*
23. It is pretty easy for people to win arguments with me.
24. Before I do something I try to consider how my friends will react to it.*
25. I have never been in trouble with the law.*

26. In school I was sometimes sent to the principal for cutting up.
27. I try to keep out of trouble at all costs.*
28. I often think about how I look and what impression I am making upon others.*
29. I find it easy to "drop" or "break" with a friend.
30. It is hard for me to act natural when I am with new people.*
31. I have often gone against my parents' wishes.
32. Most of the time I feel happy.*
33. My table manners are not quite as good at home as when I am out in company.*
34. I know who is responsible for most of my troubles.
35. When I was going to school I played hookey quite often.
36. People often talk about me behind my back.
37. I often feel as though I have done something wrong or wicked.
38. I don't think I'm quite as happy as others seem to be.
39. I used to steal sometimes when I was a youngster.
40. I am somewhat afraid of the dark.*
41. I never cared much for school.
42. The members of my family were always very close to each other.*

43. I sometimes wanted to run away from home.

44. My parents have generally let me make my own decisions.*

45. My home life was always very pleasant.*

Responses: (T) delinquent, (F) non-delinquent

*Reversed items

INDEX OF CONGRUENCE

Variables	Value	Range of possible point differences between matched pairs:
1. Age		0 to 2 points
Under 12 months difference	= 0	
12 months to 24 months difference	= 1	
Over 24 months difference	= 2	
2. Ethnicity		0 to 1 point
Anglo-Anglo	= 0	
Anglo-Other	= 1	
3. Socioeconomic Status		0 to 3 points
Same level	= 0	
1 level difference	= 1	
2 levels difference	= 2	
3 levels difference	= 3	
4. Offense History		0 to 2 points
First offender, non-serious with first offender, non-serious	= 0	
First offender, serious with first offender, serious	= 0	
Multiple offender, non-serious with multiple offender, non-serious	= 0	

Multiple offender, serious with multiple offender, serious = 0

First offender, serious with first offender, non-serious = 1

Multiple offender, serious with multiple offender, non-serious = 1

First offender, serious with multiple offender, non-serious = 2

First offender, non-serious with multiple offender non-serious = 2

5. Length of Treatment 0 to 2 points

1 month difference or less = 0

1 month to 3 months difference = 1

3 months to 6 months difference = 2

APPENDIX B

TABLES

Table 1

LIKING

MEAN DIFFERENCES BETWEEN TIME PERIODS

(t test)

TREATMENT GROUP

	T_2	T_3		T_3	T_4		T_4	T_5		T_2	T_5	
PL-1	10.5	10.2	N=80 t=.79	10.2	10.5	N=55 t=-.80	10.5	10.7	N=26 t=-.23	10.5	10.7	N=52 t=-.31
PL-2	6.6	6.5	N=80 t=.32	6.5	6.8	N=55 t=-.58	6.8	7.1	N=26 t=-.35	6.6	7.1	N=51 t=-.62
PPCL	5.9	6.5	N=79 t=-1.87	6.5	6.5	N=55 t=.07	6.5	7.3	N=26 t=-1.04	5.9	7.3	N=50 t=-1.96
CL-1	10.2	10.2	N=79 t=.01	10.2	10.1	N=55 t=.17	10.1	10.2	N=26 t=-.14	10.2	10.2	N=50 t=.00
CL-2	6.8	6.9	N=77 t=-.37	6.9	6.9	N=54 t=.09	6.9	6.4	N=26 t=1.37	6.8	6.4	N=49 t=1.60
CPPL	5.8	6.0	N=77 t=-.76	6.0	6.0	N=54 t=-.09	6.0	5.5	N=26 t=1.65	5.8	5.5	N=49 t=1.10

Table 1

LIKING

MEAN DIFFERENCES BETWEEN TIME PERIODS

(t test)

TREATMENT GROUP

	T_2	T_3		T_3	T_4		T_4	T_5		T_2	T_5	
PL-1	10.5	10.2	N=80 t=.79	10.2	10.5	N=55 t=-.80	10.5	10.7	N=26 t=-.23	10.5	10.7	N=52 t=-.31
PL-2	6.6	6.5	N=80 t=.32	6.5	6.8	N=55 t=-.58	6.8	7.1	N=26 t=-.35	6.6	7.1	N=51 t=-.62
PPCL	5.9	6.5	N=79 t=-1.87	6.5	6.5	N=55 t=.07	6.5	7.3	N=26 t=-1.04	5.9	7.3	N=50 t=-1.96
CL-1	10.2	10.2	N=79 t=.01	10.2	10.1	N=55 t=.17	10.1	10.2	N=26 t=-.14	10.2	10.2	N=50 t=.00
CL-2	6.8	6.9	N=77 t=-.37	6.9	6.9	N=54 t=.09	6.9	6.4	N=26 t=1.37	6.8	6.4	N=49 t=1.60
CPPL	5.8	6.0	N=77 t=-.76	6.0	6.0	N=54 t=-.09	6.0	5.5	N=26 t=1.65	5.8	5.5	N=49 t=1.10

Table 2

LIKING

MEAN DIFFERENCES BETWEEN TIME PERIODS

(t test)

CONTROL GROUP

	T_2	T_3		T_3	T_4		T_4	T_5		T_2	T_5	
PL-1	9.7	9.1	N=78 t=1.22	9.1	9.3	N=52 t=-.24	9.3	10.1	N=24 t=-.79	9.7	10.1	N=50 t=-.46
PL-2	5.8	5.5	N=78 t=.61	5.5	5.9	N=52 t=-.61	5.9	6.1	N=24 t=-.18	5.8	6.1	N=50 t=-.45
PPCL	5.3	5.2	N=78 t=.28	5.2	5.0	N=52 t=.56	5.0	5.9	N=24 t=-1.82	5.3	5.9	N=50 t=-1.23
CL-1	10.4	9.9	N=80 t=1.33	9.9	9.6	N=53 t=.34	9.6	10.5	N=24 t=-1.10	10.4	10.5	N=51 t=-.31
CL-2	6.6	6.4	N=79 t=1.29	6.4	6.1	N=53 t=1.19	6.1	6.5	N=24 t=-1.00	6.6	6.5	N=50 t=.53
CPPL	5.5	5.1	N=79 t=1.55	5.1	4.7	N=53 t=.95	4.7	5.2	N=24 t=-.85	5.5	5.2	N=50 t=.62

Table 3

LIKING

TERMINATED VS. CONTINUING SUBJECTS

MEANS AND T TEST

	PL-1	PL-2	PPCL	CL-1	CL-2	CPPL
6 mo. T_N subjects	9.6	6.1	5.9	10.1	6.6	5.6
Other 6 mo. subjects	9.7	5.8	5.8	9.8	6.7	5.4
	N=79 t=-.23	N=79 t=.60	N=79 t=.19	N=80 t=.86	N=79 t=-.34	N=79 t=.77

	PL-1	PL-2	PPCL	CL-1	CL-2	CPPL
9 mo. T_N subjects	9.0	6.1	5.4	10.3	6.9	5.3
Other 9 mo. subjects	10.4	6.5	6.0	9.7	6.4	5.5
	N=28 t=-1.30	N=28 t=-.39	N=28 t=-.99	N=28 t=.59	N=28 t=.92	N=28 t=.50

Table 4

FREQUENCY OF INTERACTION X TIME PERIOD X COUNSELING (TREATMENT VS. CONTROL) ON LIKING

THREE-WAY ANALYSIS OF VARIANCE

CELL FREQUENCIES

Low Interaction

	Treatment	Control
T_2	4	21
T_3	15	31
T_4	4	12
T_5	6	9

High Interaction

	Treatment	Control
T_2	36	18
T_3	25	8
T_4	11	1
T_5	5	2

F Values

	df	PL-1	PL-2	PPCL	CL-1	CL-2	CPPL
FRQINT	2	.18	.05	.32	.17	.00	.07
TIME	2	.79	.23	2.04	2.11	.51	.39
COUNSELING	2	4.45*	4.01*	11.45**	.00	1.46	2.83
FRQINT X TIME	4	.22	.95	.34	2.07	.82	.21
FRQINT X COUNSELING	4	.34	.02	.06	.06	.14	.26
TIME X COUNSELING	4	.28	.23	.66	2.95*	1.04	2.04
FRQINT X TIME X COUNSELING	8	.09	.27	1.11	2.92**	.83	.40

*$p < .05$

**$p < .01$

Table 5

LIKING, FREQUENCY OF INTERACTION, AND AUTHORITY

(PRODUCT-MOMENT CORRELATIONS)

LAST 6-MONTHS INTERVAL+

TREATMENT AND CONTROL GROUPS COMBINED

	Sum PL-1	Sum PL-2	Sum CL-1	Sum CL-2	Sum FRQINT
Sum FRQINT	-.02	.09	.14	.16	
AUTH	-.31**	-.32**	-.22*	-.36**	.09
GENAUTH	-.55**	-.55**	-.38**	-.48**	.01
N =	79	79	79	78	79

*p < .05
**p < .01

+The last 6 months of INTERACTION and LIKING are summed and correlated with AUTHORITARIANISM as measured upon termination of probation.

Table 6

LIKING, FREQUENCY OF INTERACTION, AND AUTHORITY

(PRODUCT-MOMENT CORRELATIONS)

LAST 6 MONTHS INTERVAL+

TREATMENT GROUP

	Sum PL-1	Sum PL-2	Sum CL-1	Sum CL-2	Sum FRQINT
Sum FRQINT	-.14	.05	.13	.09	
AUTH	-.17	-.16	.00	-.35*	.32*
GENAUTH	-.46**	-.48**	-.23	-.51**	.19
N =	40	40	40	39	40

CONTROL GROUP

	Sum PL-1	Sum PL-2	Sum CL-1	Sum CL-2	Sum FRQINT
Sum FRQINT	-.19	-.13	.01	-.07	
AUTH	-.39**	-.41**	-.37*	-.29	-.04
GENAUTH	-.60**	-.56**	-.45**	-.36**	.14
N =	39	39	39	39	39

*p < .05
**p < .01

+The last 6 months of INTERACTION and LIKING are summed and correlated with AUTHORITARIANISM as measured upon termination of probation.

Table 7

LIKING, FREQUENCY OF INTERACTION, AND AUTHORITY

(PRODUCT-MOMENT CORRELATIONS)

LAST 6 MONTHS INTERVAL+

TREATMENT AND CONTROL GROUPS COMBINED

PROBATIONERS TERMINATED AT 6 MONTHS

	Sum PL-1	Sum PL-2	Sum CL-1	Sum CL-2	Sum FRQINT
Sum FRQINT	-.13	.10	.12	.09	
AUTH	-.42**	-.42**	-.15	-.44**	.11
GENAUTH	-.61**	-.58**	-.27*	-.52**	.01
N =	51	51	51	50	51

PROBATIONERS TERMINATED AT 9 MONTHS

	Sum PL-1	Sum PL-2	Sum CL-1	Sum CL-2	Sum FRQINT
Sum FRQINT	.56*	.37	.66*	.52	
AUTH	-.35	-.64*	-.20	-.24	.32
GENAUTH	-.63*	-.80**	-.50	-.52	.06
N =	8	8	8	8	8

PROBATIONERS TERMINATED AT 12 MONTHS

	Sum PL-1	Sum PL-2	Sum CL-1	Sum CL-2	Sum FRQINT
Sum FRQINT	.13	.09	-.09	-.10	
AUTH	-.23	-.06	-.38*	-.19	.12
GENAUTH	-.52**	-.41	-.67**	-.33	.06
N =	20	20	20	20	20

*p < .05 **p < .01

+The last 6 months of INTERACTION and LIKING are summed and correlated with AUTHORITARIANISM as measured upon termination of probation.

Table 8

LIKING, FREQUENCY OF INTERACTION, AND AUTHORITY

(PRODUCT-MOMENT CORRELATIONS)

LAST 6 MONTHS INTERVAL+

PROBATIONERS TERMINATED AT 6 MONTHS

TREATMENT GROUP

	Sum PL-1	Sum PL-2	Sum CL-1	Sum CL-2	Sum FRQINT
Sum FRQINT	-.27	.04	.13	.02	
AUTH	-.19	-.18	.06	-.43*	.36*
GENAUTH	-.45**	-.49**	-.13	-.54**	.23
N =	25	25	25	24	25

CONTROL GROUP

	Sum PL-1	Sum PL-2	Sum CL-1	Sum CL-2	Sum FRQINT
Sum FRQINT	-.15	.01	-.01	-.11	
AUTH	-.63**	-.59**	-.30	-.41*	-.07
GENAUTH	-.73**	-.62**	-.32	-.43*	.10
N =	26	26	26	26	26

*p < .05
**p < .01

+The last 6 months of INTERACTION and LIKING are summed and correlated with AUTHORITARIANISM as measured upon termination of probation.

Table 9

LIKING, FREQUENCY OF INTERACTION, AND AUTHORITY

(PRODUCT-MOMENT CORRELATIONS)

LAST 6 MONTHS INTERVAL[+]

PROBATIONERS TERMINATED AT 12 MONTHS

TREATMENT GROUP

	Sum PL-1	Sum PL-2	Sum CL-1	Sum CL-2	Sum FRQINT
FRQINT	.33	.24	-.28	-.25	
AUTH	-.02	-.04	-.12	-.08	.35
GENAUTH	-.50*	-.59*	-.61*	-.45	.17
N =	10	10	10	10	10

CONTROL GROUP

	Sum PL-1	Sum PL-2	Sum CL-1	Sum CL-2	Sum FRQINT
FRQINT	-.55*	-.49	.34	-.01	
AUTH	-.39	.05	-.74**	-.27	.02
GENAUTH	-.52*	-.22	-.76**	-.26	.04
N =	10	10	10	10	10

*$p < .05$
**$p < .01$

[+]The last 6 months of INTERACTION and LIKING are summed and correlated with AUTHORITARIANISM as measured upon termination of probation.