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EVALUATION RESEARCH:
SOME POSSIBLE CONTEXTS OF THEORY FAILURE

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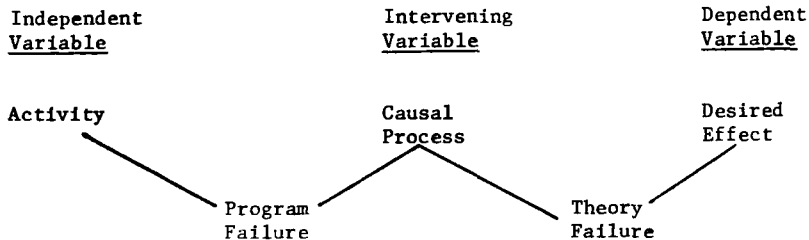
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What can evaluation research tell us about social science theory? It is the purpose of this paper to examine that question. There has been much written in the current literature about the relationship between theory and practice. Because it is evaluation research (Breedlove, 1972: 71-89; Newbrough, 1966: 39-52; Suchman, 1971: 43-48; Suchman, 1967; Weiss, 1973: 37-45; Fitz-Gibbons and Morris, 1975: 1-4) that attempts to analyze the results of practice, it is the authors' belief that an examination of evaluation research studies for possible contexts of theory failure will contribute to a linkage between theory and practice. In explaining the role of evaluation research in the advancement of basic knowledge, Suchman (1967: 170) states:

Action programs in any professional field should be based upon the best available scientific knowledge and theory of that field. As such, evaluations of the success or failure of these programs are intimately tied into the proof or disproof of such knowledge.

In a similar vein, Marc Fried (1968: 285) remarks that "evaluation. . . should be a source of theoretical change." Fitz-Gibbons and Morris (1975: 1-4) emphasize the importance of evaluation studies in which the selection of program features to evaluate is "determined by an explicit conceptualization of the program in terms of a theory which attempts to explain how the program produces the desired effects."

Suchman (1971: 47) has developed the following research model for evaluation.



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According to this model, it is evaluation research which "tests the ability of a program to affect the intervening causal process." It is not the purpose of evaluation research to test "the validity of the causal process as a determinant of the desired effect." (Suchman, 1971: 47) But if a program has not influenced the causal process, it is not enough to say that this was program failure and to leave it at that. If a program has not influenced the causal process as expected, this provides us with a basis for questioning the theoretical basis of the program. As Suchman (1971: 46) said:

There must be some theoretical basis for linking the program to the original objectives. The question "Does it work?" presupposes some rationale as to why one might expect it to work. In this sense, evaluative research may be viewed as a form of social experiment.

Carol Weiss (1972: 128) carries this idea of the social experiment one step further in saying that if "we take evaluation results seriously, we will have to embark on more fundamental social experimentation." Campbell (1971: 233) presents a similar perspective on social experimentation:

The United States and other nations should be ready for an experimental approach to social reform, an approach in which we try out new programs designed to cure specific social problems, in which we learn whether or not these programs are effective, and in which we retain, initiate, modify, or discard them on the basis of apparent effectiveness on the multiple imperfect criteria available.

However, these reforms, or social experiments, will not be able to provide opportunity for the expansion and utilization of social knowledge, unless evaluation research is able to adapt existing models of social research to field studies of action programs. Campbell and Stanley (1963) have recognized this need, and in order to extend the logic of the laboratory into the field, have evaluated a series of experimental and quasi-experimental designs in terms of threats to their experimental validity. These quasi-experimental designs are modifications of the classic experimental designs, the use of which will be evident in the studies reported in this paper. Turning now to areas of social programming for examination of possible contexts of theory failure, attention will be focused to the fields of community mental health; education; capital development; and delinquency.

COMMUNITY MENTAL HEALTH

The Community Mental Health Centers Construction Act was passed in 1963 to provide funds for the construction of facilities to provide mental health services in local communities. This legislation was passed in order that comprehensive and related services could be provided which would "result in high quality care, and in a continuity of care, for each individual." (Yolles, 1968: 282) As Connery (1968: 479) explains:

The advocates of the community approach strongly implied that such centers would enable the detection and successful treatment in their own communities of large numbers of persons who otherwise would wind up in the mental hospitals.

However, when we are not certain about the etiology of mental illness, we cannot be completely certain about programming to deal with that problem, and as Newbrough has stated, "there is no specific theory about mental illness which overrides all others." (Newbrough, 1966: 10) The analysis of the studies reported in this paper will examine the assumption that services delivered in a community mental health context make it possible for each individual to receive mental health services in a comprehensive and coordinated system of care, and that such services result in successful treatment of large numbers who otherwise would have been hospitalized. But before moving into these studies, several theories regarding mental illness, as well as several ideological statements, will be briefly reviewed. Ideological statements are included because, as Price (1972: 5) has cautioned, "what passes for theory in the study of abnormal behavior is often mixed with large doses of ideology." This brief review will be undertaken to provide a framework for examination of existing policies and programs. As Carol Weiss (1973: 45) has said:

Pivotal contributions are needed. . . in applying the knowledge, theory, and experience that exist to the formulation of policy. . . this effort will lead us to think in new categories and suggest different orders of intervention.

Following Price's scheme (1972), mental health theories may be viewed on four levels of analysis: biological, intrapsychic, interpersonal, and social. The biological level of analysis refers to organic disorders - those "physiological and genetic events occurring within one person." (Price, 1972: 191). This is essentially an illness perspective, around which there has been much controversy. The quarrel arises when functional disorders, which have no organic basis, come to be considered illness. Writers such as Szasz (1961) maintain that mental illness is a myth, that in fact, mental diseases do not exist in the way do bodily diseases. However, as Price reminds us, the illness model is the single most common view of abnormal behavior. The other level of analyses are also influenced by the "illness" perspective. The intrapersonal level of analysis includes the psycho-analytic, the moral, and the humanistic views of behavior. The interpersonal level of analysis contains primarily the moral, humanistic, learning, and social perspectives of behavior. The social level contains primarily the learning and social perspectives of behavior. However, as Price describes the social perspective, mental illness is defined as deviance and as norm violation, rather than a normal reaction to an unhealthy environment. To use Ryan's terminology, (1971) it is exceptionalistically defined rather than universalistically defined. Although this social perspective may leave a great deal of room for a psychiatrist to attempt to readjust his client to normal role behavior, this is the one perspective from which Price poses institutional reform as the means of therapeutic intervention. The other perspectives all require the interaction of the client with the psychiatrist.

There are additional theories which can provide us with social and institutional explanations for emotional disorder. Hollingshead and Redlich (1968) hypothesized that those who are trapped by rigid class lines are more susceptible to survival stress than those in the middle and upper classes. Ryan (1971: 153) is another spokesman for this relationship between psychiatric disorder and low socio-economic status. He theorizes that the elimination of stresses and

the opportunity for the poor to influence their environment may have far more impact upon their mental health problems "than arcane expeditions searching for the long-lost blueprint to the psychic plumbing hidden behind the walls." Bastide, (1972) a French sociologist, posed the theory that mental illness results from lack of social integration. It is his opinion that the breakdown of traditional family roles and the lack of interaction with significant others may be primarily responsible for instances of emotional disturbance.

Where does the ideology of community mental health fit into this array of theory which has been presented? Connery (1968: 480) has described several points of consensus in the community mental health movement of which one is that mental illness is basically a medical problem and as such, falls within the domain of medicine. This is supportive of Price's contention (1972: 62) that "our major social and governmental institutions concerned with the problem of abnormal behavior identify themselves in ways which suggest that they are concerned with problems of health and illness." Lawrence Kolb, (1972: 217) in discussing the issue of radicalism in community mental health, states his view that it is a mistake to move away from the medical model. On the other hand, there are professionals involved in this movement who think that clinging to the medical model is a mistake. (Albee, 1972; Ryan, 1971; Ryan, 1969; Szasz, 1961) For example, George Albee (1972: 218) holds the opinion that the sickness model should be replaced by a social learning model, which attributes the majority of emotional disturbance to a dehumanized environment. There is obviously little agreement among professionals regarding which theory or which policy is the most correct for dealing with the problem of mental health, or even which problems should be thought of as mental illness. It will be the purpose of the following section of the paper to examine the results of several evaluative studies in the field of community mental health for what light they may shed on this theoretical controversy.

Although not an evaluative study in the strict sense, the results of the survey conducted by William Ryan (1969: 21) of mental health services in Boston have implications for the community mental health movement which need to be examined. Boston has one of the highest concentrations of psychiatric facilities and mental health professionals in the country. The primary objective of the community mental health legislation was to establish enough facilities that everyone needing care could receive it in their own communities. Thus, it is important to examine just what does happen when psychiatric facilities are abundant.

Data compiled regarding the identification of mentally ill in Boston were taken from estimates rather than actual counts. It was Ryan's opinion that this did not jeopardize the validity of the study. Of every 1000 Bostonians, 150 were helped in mental health settings, 5 in mental hospitals, 4 in mental health clinics, and 1 in a psychiatrist's office. Of the 4 accepted for treatment in mental health clinics, 8 or 9 will have applied for treatment, and only 2 of the 4 will stay in treatment more than a few weeks. Of the other 140 out of the 150 identified as being emotionally disturbed, 2 out of every 5 will be seen either by physicians, or by workers in casework agencies and settlement houses, and the clergy. This means that approximately one-third of those identified as needing help will not receive any assistance. Ryan assumes that of the 150 identified there may be half again as many not identified and not receiving service.

Ryan also studied the referral process, which is the backbone of many programs across the country attempting to provide coordination of mental health services. He initially found that of 11,000 Bostonians referred to outpatient psychiatric resources, only 2500 applied for treatment. In a study to examine the results of the referral process when conducted by professionals, he found that of 140 emotionally disturbed persons applying to 2 Boston referral sources, one-third never approached the agency to which they were referred, one-third made the initial contact but did not return after 1 or 2 interviews, and of the remaining one-third only a few received direct help for their emotional disturbance, with the majority receiving limited help in such forms as financial assistance. It is Ryan's opinion that the referral process failed because of the class factor, inaccurate expectations regarding the help process, family disorganization, lack of specific services for such groups as children and recently discharged mental patients, and an inability to serve low-income people.

Providing mental health services to those of low income seems to be a particular problem. Ryan (1969: 39-55) presents the finding that in other cities across the country, one-third to one-half of all families receiving public assistance evidenced disordered behavior. Within the caseload of the Department of Public Welfare in Boston the number of emotionally disturbed needing help exceeded the total number of patients treated in all of Boston's outpatient psychiatric clinics. However, as this study reveals, those whose problems result from disordered social patterns either do not seek or are not accepted for treatment in the mental health clinics.

In addressing the issue of ambiguity regarding responsibility for service, Ryan presents as one reason the fact that while an assumption has been made that all emotionally disturbed persons are entitled to service, society has made no such commitment and has established no mechanism for providing these services. This is a severe indictment of the community mental health movement. If monies are being granted for establishment of community mental health facilities, but these facilities are not capable of responding to the needs of the populations for which they are responsible, we must stop and reconsider our approach. Perhaps, as Ryan suggests, we ought to consider upgrading our public welfare departments so that these staff can deal effectively with their clients' problems-in-living. He further suggests that psychiatrists and those in allied professions should begin treating those who are truly ill, many of whom now lie neglected in state institutions. It is his belief that non-diseased persons, persons who are having problems-in-living, are now conceptualized as being diseased, and that this is causing enormous problems for the delivery of mental health services:

The disease model is no longer pragmatically useful. It impedes the rational development of services for people in trouble. It adds nothing to our general capacity to understand and to cope with the problems presented by these people. It raises a confusing set of barriers to effective programming. . . The manpower crisis in mental health is, in large measure, attributable to our insistence on clinging to the disease model. (Ryan, 1969b: 258)

One inference that may be drawn from this study is that perhaps the illness model should be applied only to those whose problems are the result of actual disease. Other models, such as the social learning model suggested by Albee, may be more appropriate for the treatment of those with problems-in-living.

The next study to be discussed is that of a coordinated community after-care program (Northcutt, 1969). This coordinated after-care program was developed because professionals in this metropolitan Florida county thought that a broad service program should be available to patients returning from state mental hospitals, and that such a program would avoid duplication of effort. Recognizing that rehabilitation of patients is often not attained, members of thirty-three organizations and agencies participated in developing this program which was an attempt to facilitate post-hospital adjustment. The stated hypothesis of the program was that:

A program designed to coordinate services to returning mental health patients is more effective in facilitating posthospital adjustment than is a community program in which there is no designated coordinating service for this purpose. (Northcutt, 1969: 472)

In order to evaluate this program, a plan was developed in which the posthospital adjustment of patients returning to the county with a coordinated after-care programs would be compared to that of patients returning to a control county which had no individual or agency to coordinate services for patients recently discharged from state mental hospitals. The two counties were similar in population characteristics, economic structure, and mental health resources. The program operated for two years before the evaluation was conducted. Following this two-year period, all patients returning to the community, in both the experimental and control counties, were seen by trained interviewers, following a structured interviewing schedule.

Comparison of services to patients revealed the following:

	<u>Control Group</u>	<u>Experimental Group</u>
Percentage receiving services from community agencies	91.7%	71.9%
Percentage having their first contact with a community service within one month of leaving hospital	81.3%	36.3%
Number of agency-patient contacts initiated by a community agency	higher	lower

In addition, there were no significant differences between the two groups on the following measures: patient reaction to services, number of visits to physicians and outpatient clinics, use of or source of recommended medicine. The study further showed that 46.9% of the experimental patients returned to the hospital whereas only 38.5% of the control patients were readmitted.

What can this study tell us about the policy of providing coordinated mental health services to all individuals requiring these services? James Kelley (1966: 43) has defined the principle of continuity of care as services which are "successive and administered with a minimum of delay." If this definition is followed, the goals of comprehensive care and continuity of care were not realized. This study illustrates that mere establishment of a mechanism for coordination of mental health services is no guarantee that persons needing service will receive it. It is possible that the referral process may have broken down because of factors such as Ryan discusses. It is likely that the needs of these patients were not being adequately addressed by this program.

Let us examine the results of this study from a theoretical perspective. Bastide (1972) has postulated that mental illness may be the result of social disintegration. Others have said that emotional disturbance may be due more to the inequities of the existing social structure than to individual failing. Maslow's concept of self-actualization has been interpreted to focus on the "institutions, organizations, and conditions in the community which block opportunity for self-actualization." (Blum, 1971: 8-9) Results of this study lend support to theories which state that if mental illness is to be dealt with effectively, then sociostructural changes may need to be made and intensive supportive services may need to be offered to every individual needing them. Kahn (1969: 171) addresses this issue of attending to the basic life needs:

. . .community psychiatry and general social services should be suspect if they offer interpersonal help and intrapsychic counseling in a context in which the basic life needs and services are lacking: jobs, income security programs, housing, health facilities, job counseling, information, day care, homemakers, education.

It may well be that the policy of coordinating mental health services so that all needing them may receive these services has not been implemented in such a fashion as to provide all the supportive services necessary.

The next to be discussed focuses upon the prevention of hospitalization in schizophrenia. (Davis, 1972: 375-388). This study was initiated to test the hypothesis that:

The professional and psychiatric facilities needed for patient care could be reduced by reliance on socio-supportive home care and a supervised drug regime.

Patients were randomly selected from newly hospitalized patients and were assigned with 40% in a home care group placed on drugs, 30% in a home care group placed on placebos, and 30% in a control group treated in the usual manner by the course of state hospital care. A public health nurse was assigned to each patient in the home care groups. The nurses made weekly visits the first three

months, semi-monthly visits the second six months, and monthly visits after this six month period. The nurses left medication prescribed for the patients and wrote status reports on the patients. The instruments employed in measuring patient progress included: psychiatric inventories (LORR, IMPS), a social problem checklist, a domestic performance scale, and a social participation index. Results of this original study, after a 2 1/2 year period, indicated that 77% of the home care group placed on drugs had remained in the community, whereas 66% of the home care group receiving placebos had been rehospitalized. Most failures in these two groups occurred during the first six months. Most improvements in performance also occurred during the first six months of the study. After that, there was little, if any, improvement in functioning. The hospitalized control group failed more often at termination of care than did the home care groups. Test instruments indicated that the home care groups were functioning as well as or better than the hospital control group.

The original study was completed after a 2 1/2 year period. A follow-up study was initiated to test the long-range effects of the experiments, covering the years 1964-1969. At the end of this five-year period results indicated that the positive effects of home-care treatment had eroded. The results showed no statistically significant differences in any of the three groups in the number of rehospitalizations, or the percentages of each group rehospitalized, although the placebo group did spend more time in the hospital once the public health nursing care was withdrawn. Nor were there significant differences between the groups in the extent of clinic care received during the follow-up period, on the psychiatric status scores, on the social problems checklist; on vocational performance, or on the mean total scores of the domestic performance scale. The better functioning and experience of the home treatment drug group had eroded; the drug group showed an increased impairment after the study, where the placebo group improved once they were able to receive medicine; domestic performance deteriorated for all three groups. Those who failed had a tendency to fit into the following profile: they were less likely to be married, were more likely to be of low status, were more likely to be women or black, were likely to be sicker and more problematic, and were less likely to be viewed as cooperative by outpatient clinic staff.

What are some of the implications of this study? The original hypothesis was shown to be true - if socio-supportive care and a supervised drug regimen can be offered to emotionally disturbed persons, then care in psychiatric facilities may not be necessary. However, the crux of the matter is that this care was available only on a short-term experimental basis. Once these supportive services were withdrawn, and patients had to rely on outpatient psychiatric facilities for care, their improvement deteriorated. As the authors of this study explain:

Psychiatric clinics. . .operate on the assumption that patients are rational, responsible, and interested in improving their health status. This model simply does not apply for most disordered, disoriented, or psychotic patients. . .If clinics are to play a major role in providing community care for schizophrenic patients, the laissez-faire model and its assumptions will have to be replaced by an aggressive delivery system designed to deal with chronic, marginal patients. (Davis, 1972: 386)

Thus a policy which states that psychiatric facilities must be made available to everyone, in order that all persons needing care receive it, does not go far enough. This study lends support to the belief that there must be a major restructuring of the mental health delivery system.

What can this study reveal to us about theories of mental illness? It clearly shows that mental health services structured around a traditional image of the sick person seeking psychiatric care does not hold in the case of many emotionally disabled persons. As Ryan's study showed, persons who are not able to articulate their needs, or whose problems are the result of a disordered social pattern, either never seek care, or are rejected for treatment. This study lends support to Bastide's theory of social disintegration which states that persons who are isolated or who are the victims of the breakdown of traditional roles are more likely to be mentally ill than those who have not been affected by a lack of social integration. As this study showed, those who are rehospitalized were more likely to be of low status and less likely to be married, groups which tend to reflect social disintegration. These results are consistent with Hollingshead and Redlich's findings that persons of low social class were more likely to be hospitalized in public institutions than those of higher social class. These persons are more susceptible to survival stresses and are most in need of intensive socio-supportive services.

A final mental health issue is that of drop-outs from treatment. Drop-outs are a serious problem, and present a severe challenge to the goal of community mental health to provide comprehensive care and a continuity of care for all needing that care. Three studies will be examined in relation to this problem.

The first is an evaluation of a social rehabilitation program for recently released psychiatric patients. (Wolkon, 1971: 312-322) Of 333 patients being discharged from mental hospitals in the study area, 225 refused to participate in the program and 108 accepted. Those attending 10 times or less were more likely to be rehospitalized than those attending 50 times or more. A full 50% of the patients left the program against professional staff advice, and were more likely to be rehospitalized and to spend more time in the hospital than those who were terminated as maximum benefit. Another 30% were rehospitalized directly from the program, with only 20% terminated as maximum benefit. Of this 20%, it was not certain whether the better outcome could be attributed to the program per se, the characteristics of the clients, or an interaction between the two. Thus, for the majority of persons who did agree initially to participate in this program, the services offered did not appear to facilitate readjustment in the community. This raises the real probability that programs such as these may not be able to provide the necessary services this population requires, and that one reason may be that they do not have the resources with which to do so. A similar problem also arises as to how programs are to provide help for those who need it but will not accept it. It may be concluded that these two problems and their solutions are inter-related.

Another study of continuity of care into the community raises similar concerns. (Kline and King, 1973: 354-359) Of 312 patients referred to a community based social rehabilitation center from three state supported psychiatric hospitals, 204 did not follow through on the referral. In-hospital staff made the referrals; patients were chosen by their need for these services rather than by their motivation for such service. The implication of this study, like the previous one, is that there are serious problems in the implementation of continuity of care. Here again, programs were not able to provide the kinds of care the community mental health movement set out to provide.

The third study is an analysis of treatment drop-outs from a community mental health center. (Wolkon, 1970: 215-220) Among 928 discharges from this center, 34% left without staff approval. Data for the study were generated by three forms in the center's record system: the Admission form, providing variables representing demographic and background information; the Social History form, providing variables representing the patient's interaction with their environment; and the Mental Status form, providing variables describing the patients' internal states and symptomologies. Thirty-nine variables showed significant differences between the drop-out and comparison groups. These differences included the following: drop-outs were rated as more impaired and as more dangerous to self, were younger and more recently married, had recently had more jobs, showed more anger and movement against people, had poorer adjustment ratings and were given poorer long-range prognosis, had less educational success, were rated as less likely to require custodial care, had more comfort and dependency problems, and more of them had come from broken homes than in the comparison group which had been discharged with staff approval. The authors suggest that because these patients were the most difficult and frustrating to work with, they may in fact have been pushed out or eased out of treatment. This suggestion is consistent with Ryan's findings that many who applied for treatment in Boston's outpatient facilities were in fact rejected for treatment.

As with the previous studies, these findings regarding treatment drop-outs indicate that there are vast numbers of persons in need of intensive service, including social-supportive services. Theories of emotional disturbance which are illness oriented offer a restrictive view of service, and may be a major cause of persons such as these falling by the wayside. Albee, also, has noted the role of community mental health centers in perpetuation of the illness model. Price has made a similar statement to the effect that our institutions concerned with the problems of emotional disturbance focus primarily on problems of health and illness. In light of these findings, this focus is cause for great concern.

EDUCATION

Let us now turn to the field of education and examine how some theories fared under evaluative studies. During the 1960's compensatory educational programs were developed for young children which were designed to break the cycle of poverty, poor education, poor jobs, poverty. The evaluation of these Head Start programs indicated, however, that there were no significant gains in achievement test results between those children who had attended compensatory education programs and those who had not. The premise of Head Start had been stated as follows:

(that the) children of the poor might be helped by early, pre-school, educational intervention. (Ball, 1970: 2)

Following the line of thinking developed in Edward Suchman's model, the question may be asked: was this failure the result of unsuccessful programming or was the failure the result of a faulty theory? It is probably that in addition to the Head Start program not successfully intervening in the causal process to bring about the desired effect, the assumptions upon which Head Start was based were not correctly linked to the desired effect. It may very well be that early educational intervention will not result in increased educational achievement. It may also be, as Christopher Jencks (1972) suggests, that early childhood intervention is a moot point, for educational achievement is not significantly related to later income success. We will examine below two theorists' arguments for the development of alternative theories regarding educational achievement and educational programming.

Arthur Jensen (1969) opens his treatise on I.Q. and scholastic achievement by suggesting that the premises on which recent compensatory education efforts to produce lasting effects on children's I.Q. and scholastic achievement should be re-examined. He questions the notion that I.Q. differences are primarily the result of environmental differences and the cultural bias of I.Q. tests, and poses the alternative theory that genetic factors are more important than environmental factors in the determination of I.Q. The concept of heritability, or the extent of variance in measurement due to genetic factors is central to his theory. According to Jensen, the fact that heritability estimates based on I.Q. differ quite significantly from zero is evidence that genetic factors play a part in individual differences in I.Q.

Jensen cites several studies to support his conclusions, among them the Burt study of twins who were separated either at birth or within the first six months of life. From these studies of identical twins reared apart and from studies of foster parents versus natural parents, Jensen (1969: 52) concludes that:

Children separated from their true parents shortly after birth and reared in adoptive homes show almost the same degree of correlation with the intelligence of their biological parents as do children who are reared by their own parents.

These finds tend to discount the importance of environmental influences upon I.Q. However, Jensen qualifies his remarks by stating that the heritability of measures of scholastic achievement is usually much less than the heritability of intelligence. He cites data from the National Merit Scholarship Corporation which lead him to believe that there are strong family influences (environmental) that tend to "reduce variance in scholastic performance among siblings reared in the same family" (Jensen, 1969: 59). He also found that unrelated children who are reared together are much more alike in scholastic performance than they are in I.Q.

It is Jensen's opinion (1969: 59) that these findings suggest:
. . .that if compensatory education programs are to have a beneficial effect on achievement, it will be through the influence on motivation, values, and other environmentally conditioned habits that play an important part in scholastic performance, rather than through any marked direct influence on intelligence per se. The proper evaluation of such programs should therefore be sought in their effects on actual scholastic performance other than i.e., how much they raise the child's I.Q.

Jensen concludes that in terms of I.Q. gains, the payoff of compensatory education programs is small. It is his opinion that when instructional techniques are intensive and highly focused, greater gains are possible in scholastic performance. As an alternative, he suggests that educators should concern themselves with the teaching of basic skills directly rather than with attempting to boost overall cognitive development. Jensen suggests that there ought to be a diversity of educational approaches aimed toward each child's individual abilities. He also suggests that instead of attempting to raise the I.Q. of the population as a whole, a far more important goal is to provide educational and occupational opportunities for the disadvantaged sector. It is this point of equal educational opportunity from which Christopher Jencks develops his thoughts.

Christopher Jencks' treatment of inequality (1972: 221) poses the central argument that the equalization of educational opportunity will do little to resolve social and economic inequities. In other words, educational reform cannot break the cycle of poverty, poor education, poor jobs, poverty which compensatory education programs have been designed to break. It is Jencks' opinion that the entire debate regarding genetic versus environmental factors is also pointless, for economic success, as he demonstrates, depends on factors other than I.Q. scores. The non-cognitive effects of schooling are far more important than the cognitive effects.

In examining occupational inequality, Jencks (1972: 180) found the following differences between persons of high and low occupational status: Differences in I.Q. genotype explains 5 to 10 percent of this gap. Differences in their cognitive skills due to their home environment account for another 10 to 20 percent. Differences in educational attainment that have nothing to do with cognitive skills account for 40 to 50 percent. . .about 35 percent of the gap has nothing to do with neither education or cognitive skills.

He also found little support for any relationships between grades and occupational success, genetic influence on I.Q. and occupational success, and family background and occupational success. However, educational attainment in and of itself, regardless of cognitive skill, is strongly related to occupational success. But while this is true, Jencks (1972: 191) also states that there are "enormous status differences among people with the same amount of education." The only viable solution for the elimination of occupational inequality which Jencks sees is a less competitive economy.

Jencks draws similar conclusions about educational opportunity and income equality. After examining the relationships between income distribution and family background, cognitive skill, educational attainment, and occupational status, he concludes that none of these factors are significant explanations of income inequality. If we are to equalize incomes, Jensen concludes, we must do so directly, rather than attempting to equalize something else with the hope that this will redistribute income. Mosteller and Moynihan (1972: 49-50) draw similar conclusions after estimating that the average cost per child per year in a Head Start program is about \$1600:

This raises the question whether a social strategy designed to increase the income of lower class families by raising occupational levels or wage rates, by tax exemptions or income supplementation, might not in the end do more to raise levels of educational achievement than direct spending on schools.

Two alternative theories to educational programming have been examined in an effort to explore the question of the failure of Head Start programs. Head Start was premised on the assumption that early educational intervention would result in higher levels of educational attainment, which would then intervene in the cycle of poverty, poor education, poor jobs, poverty. Arthur Jensen poses the theory that cognitive abilities are more influenced by genetic factors than environmental intervention techniques and that consequently, educational intervention techniques should not attempt to boost cognitive abilities but should instead focus on the acquisition of basic skills. Christopher Jencks, on the other hand, considers the entire genetic vs. environmental factors controversy an exercise in futility. It is Jencks' opinion that educational interventions are at best misguided efforts to bring about a greater equality among adults in this society. He found little evidence in his study to support the assumption that compensatory educational programs would bring children of the poor out of poverty.

ECONOMIC DEVELOPMENT

Evaluative research in the area of economic development is rather new, having been developed since the nineteen sixties. This type of evaluative research is done in contexts where several deliberate social programs were started to foster economic growth in low-income target areas. The most popular name of these social programs intended to stimulate economic growth is referred to as "community development corporations" (Practicing Law Institute, 1970) However, similar programs have been attempted in several economically underdeveloped countries for several decades, under the title of "community development programs" (Pusic, 1962).

The basic assumption behind these programs is that the drive for acquisition and profit maximization is universal, and that the availability of seed money, management and organization capability, and a certain amount of technical skill will stimulate economic growth. There are basic sociological and social-psychological theories which underly this assumption. Such theories range from Weber's classic position on certain religious values fostering capital growth to McClelland's (1961) idea of families socializing

their children to be achievement-oriented (rather than affiliation-oriented) as a necessary condition for economic development. Recently, McClelland (1972) translated his basic theory to a recommendation of a social program which will purportedly ensure economic growth.

Theories like those of Weber or McClelland serve as justification to programs like the "community development corporations" (hereafter called CDC's) in North America or "community development programs" in the developing nations. Recently, several evaluation research efforts have been completed on the North American efforts (Abt, 1972). These research works show that the CDC's have not stimulated economic growth in poor ghetto communities in North American cities so far.

An important question which follows is whether the inability of these social programs to generate economic growth is due to "program failure" or "theory failure," as Suchman (1967) termed the two possibilities. If it is true that practically all the CDC efforts have failed to stimulate economic growth, then it would seem likely that such failure is not due to just inadequate programming, but due to inadequate formulation at the theoretical level. In other words, repetitive failures of the CDC's to generate economic growth is an indication what Suchman termed "theory failure."

If indeed the basic sociological and social-psychological theories which have served as justification for the CDC's are inadequate, then one is compelled to look at the other theories which claim to explain how and under what conditions economic growth occurs. A set of such other theories is advanced by several radical or neo-Marxist scholars like Sweezy, Gordon, Edwards and MacEwan.

Sweezy (1974) has suggested that twentieth century capitalism thrives only because of vast amounts of military spending. Profit and expansion of enterprise, along with low wages to enable the former, leads to exploitation and increased gap between the wealthy and the poor. Capitalism, and thus by extension capital growth and economic development under the control of small interest groups, is thus dependent on war economy and monopoly.

Gordon (1972) has suggested that capital growth under the control of specific interest groups takes place due to conflict between economic classes defined by social relations of production. In such contexts the state operates to serve the interests of the controlling classes. The idea of monopoly as a precondition of economic growth remains a dominant theme in Gordon's work.

Edwards and MacEwan (1971: 130) have summed up some of the problems inherent in the traditional assumptions which led to the idea of the CDC's.

All in all, the curriculum of modern economics is one of philosophic marginalism: existing social relations are taken as a datum and the problem is one of administering the system by adjustments around the edges. The marginalistic approach is useful only if, accepting the basic institutions of capitalism, one is primarily concerned with its administration.

Recently, a monograph by Chatterjee (1975) suggests that CDC's in local black communities have not produced capital growth; rather, they have served the function of creating payrolls for vocal and verbal community leaders instead.*

In summary, then, it appears that evaluation research done in North American contexts on CDC's indicates that economic growth cannot be stimulated by merely providing seed money, management ability and technical skill. It is possible that several scholars committed to this classic theory of economic growth will argue that these are cases of "program failure" rather than "theory failure." However, this body of evaluative research has forced social scientists to seriously consider an alternative theory of economic growth.

DELINQUENCY

There are at least two non-convergent sociological theories claiming to explain delinquent behavior. The first of these theories may be called the "delinquent subculture" thesis. The second is referred to as the "lack of opportunity" thesis. In addition, there are psychoanalytic explanations of delinquent behavior (Aichorn, 1935) which, in the work of social scientists like Reckless, (1950: 158-168) become a modified or extended version of the "delinquent subculture" thesis.

* A methodological concern here is worthy of mention: by which measurement device can one conclusively say that there has not been any economic development in a given geographic region or community?

Traditionally, economic growth or economic development in an entire nation-state is measured by one or all of the following devices: (1) per capita income at time-one, per capita income at time-two, with both measures standardized to the purchasing power of that monetary unit in a given year; (2) median family income at time-one, the same at time-two, with both measures standardized as in #1 above; and (3) the GNP at time-one compared with that of time-two; and (4) the volume of sales and credits at time-one as compared with that of time-two, with appropriate standardization.

Among the above four measures, most researchers, including the authors of this paper, believe that the first two measures are more appropriate for ascertaining the economic growth of a given geographic community or region within a nation-state. All the generalizations made above are therefore made on the basis of the first two measurements.

The "delinquent subculture" thesis perhaps dates back to Thrasher (1936). His classic monograph, The Gang, was followed by the works of Shaw and McKay, (1941) and Albert Cohen (1955). Actually, it was Cohen who coined the term "delinquent subcultures."*

Much of the traditional social programs and more specifically group work programs in the settlement houses, seem to be based on the "delinquent subculture" theory. The primary emphasis in these programs has been resocialization. Such resocialization efforts have been directed toward changing the norms and values of delinquent youth.

The second theory referred to as "lack of opportunity," perhaps owes its origin to Merton (1957). This theory suggests that practically all members of a society pursue various goals in their lives which are shaped and defined as legitimate by the culture of which they are a part. However, not all members of society, due to various prevailing stratification systems, always have access to the institutional means to pursue cultural growth. Those who do not have the institutional means of the culture available to them tend to develop innovative means. Crime and delinquency are, especially for disadvantaged groups of people, such innovations. In other words, certain groups develop illegitimate means toward the pursuit of culturally prescribed goals.

From this second theory followed the assumption that if opportunities could be made available to delinquency-prone youth, then such deviant behavior could be changed or prevented. Actually, Cloward and Ohlin (1960) formulated such a theory which postulated that the availability of opportunities is the key factor in the prevention of delinquency.

Several social programs during the War on Poverty days were based on this second theory. These programs consisted of providing training and employment opportunities to delinquency-prone youth. One of the authors of this paper served as a research director of an evaluation research project which was (seemingly) based on the "lack of opportunity" theory. This project was funded by a branch of the Federal Government to Eastern City to develop programs in a target area of its inner city in order to prevent delinquency. This program

* The authors of this paper propose that these two sociological interpretations of delinquency are the major theoretical ideas. There are, however, several non-sociological interpretations of crime and delinquency which are not discussed here. For a good review of these various theoretical perspectives, see Michael Phillipson, Understanding Crime and Delinquency (Chicago: Aldine, 1971).

was intended to provide delinquency by offering job training and counseling to the youth from this area. The funding source required Eastern City to evaluate the program after a year to learn whether this program in particular and such programs in general prevent delinquency.

Approximately 150 youth were admitted to this program in one month, matched by race, age, sex, socio-economic status, area of residence, and known number of involvements with law officials for delinquent acts. Another sample of 75 youth were found who were not participants in the job training and counseling program of that city. This second group of youth served the purpose of a control group, whereas the first group of youth who were participants in the program served as the experimental group.

Questionnaires containing scales for measuring anti-social attitudes and alienation were administered to both groups of youth at the beginning of the program year. The same questionnaires were readministered to both groups at the end of the program year. In addition, the cooperation of the local police department was obtained in order to measure possible different rates of involvement with law officials for delinquent acts by both groups.

The results were rather surprising. The number of delinquent acts among the youth from the experimental program group increased manifold during the year, whereas that of the youth from the control group remained about the same. Anti-social attitudes remained about the same in both groups during the year. However, measures of alienation diminished among the youth in the program group but remained about the same in the control group.

Upon completing this evaluation research, the authors have had occasions to question the methodology, a quasi-experimental design, quite a few times. It is well known by now that such quasi-experimental designs may pose problems of internal validity in evaluation research. Thus, the findings from the evaluation research described above could possibly be attributed to methodological or measurement problems.

On the other hand, assuming the methodology of the above research is reasonably sound, one may begin to wonder whether this research indicates "program failure." One may begin to raise questions about "theory failure," if such programs almost universally fail to prevent delinquency. If that is the case, then one would be in a position to wonder whether "lack of opportunity" theory is anywhere as strong a predictive or explanatory theory as the theory about delinquent subcultures harboring anti-social behavior.

CONCLUSION

Let us return to the original question which opened this paper: what can evaluation research tell us about social science theory? As we have seen in the various studies reviewed, evaluation research can be a useful tool for exploring the links between social theory and practice. The results of such a review, however, are somewhat disturbing. The repeated experiences

of failure to produce the expected results in social programs must lead to a re-examination of the causal assumptions and the theoretical bases underlying such efforts.

There are at least two major objections to such an attack on theory: (a) problems of implementation, and (b) problems of measurement. The first of these is a design issue and has to do with the consistency of the independent variable. Since there are numerous ways in which programs vary, even when attempting to apply the same intervention, how can one consider them an experimental trial of any theory? That is, was the same independent variable introduced in each situation?

Obviously, this paper cannot resolve the design problems associated with doing field research. The numerous methodological problems notwithstanding, the constraints of implementing social programs into varying social situations will never go away. There will always be some differences between administrators implementing any given type of program as well as groups receiving them. The literature does reflect some attempts to implement fairly consistent programs with similar population groups. The rather uniformly modest results raises the question that perhaps it is more than an administrative deficiency operating on the results.

The second issue is that of measurement problems. The instrumentation for measuring complex and subtle changes is admittedly quite primitive. Likewise, the measuring procedures themselves may influence respondents and confound results. In the face of measures showing no change or mixed results from social programs, what conclusions may be drawn? How does one know that positive changes didn't "really" occur, untapped by our instruments? It is apparent that such questions can always be raised and can seldom be satisfactorily answered. What we have not measured may or may not be "really there." But argument in support of a program or a theory from lack of evidence is indeed a weak basis for action. Some positive line of evidence is what we all seek, even if that evidence may be contaminated with some impurities.

Numerous approaches to measuring program effects have been attempted, both in individual studies and across various studies of similar programs. As reflected in the literature, the evidence from many attempts at measurement of program effects is disconcertingly consistent in showing mixed or negative results. This may be a measurement problem, however, several applications of the same instruments as well as alternative approaches to measuring the same phenomena seem to produce somewhat similar findings. These results raise the question that perhaps it is more than an instrumentation problem influencing the situation.

The authors would suggest that the more basic issue underlying the findings of evaluation studies is the deficiency of social science theory upon which programs are based. Such studies do indeed reveal many problems in implementing social programs. Nevertheless, the almost uniform lack of effectiveness of numerous similar efforts must draw critical attention to the assumptions upon which such programs are based.

It is undeniable that much work needs to be done on strengthening the implementation of programs, on the design of evaluation studies, and on the measurement of program impacts. Nevertheless, if we are ever to have impacts to measure, it seems apparent that a great deal of more fundamental conceptual work lies ahead of us. Few of our theories of individual and social change are supported by extensive lines of evidence from the field. In fact, many social programs seem to have been guided more by ideology than theory. The development of social theory is probably the single most challenging and difficult task confronting the social sciences. That much of this work remains incomplete is one of the major conclusions which can be drawn from evaluation research studies.

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