Risks and Uncertainties in Action Research

Alfred J. Marrow

Seventeen years ago Kurt Lewin's heart failed, bringing sudden death to him in the midst of his remarkable career. He combined, as no other psychologist of his generation, scholarship of rare brilliance in the scientific study of the human mind, and moral commitment to establishing freedom and lasting peace in human affairs. His contributions to theory and practice are undimmed by the passing of time. He brought to psychology gifts of unparalleled richness.

I recall three lectures in remembrance of what he was and what he taught which were given at the annual convention of the American Psychological Association in 1947. I was privileged at that time to deliver one of these lectures together with Professors Gordon Allport and Edward Tolman. I said then that something unforgettable had gone out of our lives because Lewin's everyday activities were so interwoven with our own.

He had said of himself 11 years earlier—in 1936—that he was “unable to think productively as a single person” and that he needed a collection of friends interested in “all fields of psychology and concerned as much with experiments as with theories.” And this same need to work with a group has been equally true of those of us who, attracted by his teachings, had gathered round him during the late 1930's and formed a closely knit team. None of us is precisely a Lewinian disciple repeating the Lewinian discipline. He would have been irked by such a relationship. But each of us, in his own way, has found in the postulates of his system of psychology, in their experimental testings, and

1 Address prepared for delivery in accepting The Kurt Lewin Memorial Award of The Society for the Psychological Study of Social Issues at the American Psychological Association Convention, Statler Hilton Hotel, Los Angeles, California, September 5, 1964.

in their outcome as well as their promise, the most reliable guidelines for our diverse endeavors.

"Psychology," Dr. Ebbinghaus said, "has a long past and a short history." Our particular mode of psychologizing has a shorter history than most. My memory goes back to the late 30's when Lewin was still much of a newcomer here. I remember the spirited yet always good-natured sessions often extending long past midnight in a company that included friends like Bavelas, Cartwright, Dembo, French, Likert, Lippitt or colleagues like Wertheimer, Kofka, Kohler, Moreno, Mead, McGregor and many others, discussing the theoretical and practical roles of psychology and how they might serve in bettering human relationships. Our discussions led to empirical studies; to efforts to initiate new field inquiries into group phenomena; to rethink social processes in terms of topological and vector dynamics; and to devise experiments on complex social situations.

Lewin's own studies during his last years reached into many fields of interpersonal and intergroup relationships; each with its own line of fruitful development since his death. In two of these I had the good fortune to work very closely with him for a long period. One project was concerned with social research and action to meet problems of prejudice and discrimination in community life; the other was concerned with reaching a scientific understanding of the management of people in industry. It is of these two fields that I shall speak on this day of remembrance for Kurt Lewin.

To me the two overlap; many of their components are organically interdependent. At least in terms of the postulates that we have come to call group dynamics they can be treated as coming under one heading and shaping into one design. And as such, they challenge the insights of the psychologists who seek to improve social practice and to gain a better understanding of the nature of society and group life.

The cluster of problems constituting the challenge are of course those that keep recurring in every human institution and human society. Their solutions have been as transient as the problems have been recurrent. They require of the psychologists working on them to be alert to their own limitations and to seek not only new insights and new methods but also new guiding principles for applying scientific knowledge to social practice. We have learned from Lewin the vital importance of these requirements and we have striven to satisfy them.

Lewin in the late 1930's had reasons for urgency. The growing menace of Nazism, the aftermath of the Depression, and the threat of

---

4 Lippitt, R. Sociometry 1947, 10, p. 87 contains a bibliography of Lewin's writings.
5 Many of the references to Lewin's point of view quoted in this paper are from unpublished memoranda in the personal files of the author.
the Second World War, impelled him to urge psychologists to seek deeper explanations of why people and groups behave as they do. "We must be equally concerned," he said, "with discovering how people can change their ways so that they learn to behave better. Psychology," he insisted, "must turn its attention to the social issues which are significant for our time." It was not until several years later (1944) that Lewin found the opportunity to work on projects intimately related to the harsh realities of intergroup relations in American life. This opportunity would never have come into being without Lewin's singlehanded initiative, enthusiastic support and brilliant intellect.

These projects were made possible by a new agency—the Commission on Community Interrelations. It was set up with a $1,000,000 grant from the American Jewish Congress. This organization had devoted much of its energy to combating anti-Semitism and other forms of prejudice. The leadership of the organization was doubtful, however, about the effectiveness of its efforts. They were ready to call in social scientists in the hope that "they could discover how people could learn to behave better." And they invited Lewin, who in the fall of 1944 undertook to organize and direct CCI.

Lewin's design for the Commission was based on using the scientific methods of action research. "This combination," Lewin said, "was ideal for scientists whose chief concerns were geared towards action, towards doing something, towards changing the world as it is, while at the same time contributing to the acquisition and ordering of human knowledge."

As CCI planned it, there were three distinguishing characteristics of action research: first, it would be conducted jointly with people who wanted practical answers; second, it would be carried out under community rather than laboratory conditions; and third, measurement of attitudes and behavior would be made both before and after each action step to discover which methods succeeded and which failed.

The emphasis was to be on action, but action as a function of research. Each step taken was to be studied. A continuous evaluation of all the steps would be made as they followed one another. The rule was: no research without action, no action without research. In short, action-research.

In keeping with this rule a number of designs for experimenting were employed with the view to a more realistic understanding of the "what" and "why" of prejudice and discrimination and the "how" of reducing or eliminating it.

The program called for cooperation with as many local community groups as possible. Research projects would be selected from com-

---

Community situations and carried on with the aid of local citizens who were in a position both to contribute practical data and to apply findings through action programs. Thus, in keeping with the overall program of CCI, social scientists would join forces with community members in realistic programs of research and action.

Under the direction of Stuart Cook and Isidor Chein there followed a series of field experiments spread over five years. They concerned such issues as integrated housing; equal employment opportunity; the origin of prejudiced attitudes in children; the most effective training of community leaders; and the best handling of street gangs. Professor Chein also assembled material concerning the psychological effects of enforced segregation. This was later cited by the United States Supreme Court in its historic decision outlawing segregation in the public schools.

Two CCI projects deserve special mention. The first was the Community Self-survey, which won the Intergroup Relations Award of this Society in 1949 "for contributing the best action-related research on the problem of improving relations between groups within the United States." In announcing the award, the judges declared: "In this study, citizens are prepared, after a period of discovery and training, to play a more constructive role in their communities in matters pertaining to intergroup relationships. For their originality, therefore, for their regard for high standards of investigation, and for their demonstrated value in improving relations between groups of people, we select this offering of the Commission on Community Interrelations."

The CCI staff was satisfied that the Self-survey represented a great step forward. Its low cost would permit wide application. It became a guide to communities undertaking to compare their discriminatory practices. It made possible an annual self assessment whereby a town could measure its progress in a variety of issues: for example, on the adjustment of Negroes and whites in integrated situations and the factors affecting this adjustment.

The survey could show what kinds of persons adapt most readily, what kinds of previous training facilitates that adaptation, what human problems are developed by the arrival of Negroes in an all white neighborhood, what methods of dealing with these problems resolve them most readily, under what circumstances does a neighborhood that is open to Negroes become all Negro and what permits it to stay mixed. The Self-Survey, in sum, provided communities with the tools to do their own job on discrimination.

However, few such self surveys have been made. Much public and private money continues to be spent at the wrong time, in the wrong place, in piece meal and uncoordinated fashion to attain the wrong

---

7 Marrow, A. J. Living Without Hate, Harper Bros. 1950.
goals. Like many other scientific findings that offer great promise of success the Self-Survey continues to be ignored. For this the social scientists are in part responsible, since many are more concerned with discovery than with application.

On the other hand a CCI project conducted jointly with M.I.T. had a different practical outcome. It has been widely applied. It began as a leadership training workshop set up in 1946 for the Connecticut Interracial Commission. The success of this workshop led in the following year to the founding of the National Training Laboratories in Bethel, Maine. During the past seventeen years more than 10,000 people from business, government, education and other fields have received laboratory training at centers here and abroad. It has been called the most significant educational innovation of the century and described as a system of retraining that may well carry more promise for the amelioration of social problems than any other current method.

Despite CCI's six years (1944-1950) of positive achievement the financial support required to keep it going was not forthcoming. Although its program was scientifically meaningful and socially useful to an unusual degree, this was not recognized by the local welfare federations across the country on which the American Jewish Congress depended for its resources. But responsibility for this is also ours, since we had not produced among responsible laymen an understanding of the value to community welfare of a science of human relationships.

Efforts to gain foundation support were equally unsuccessful. I am particularly troubled by the failure of the great private foundations to support research in this area. The reason some gave was fear that the Internal Revenue Bureau would challenge their tax exempt status if they participated in what could be interpreted as "political activity." Apparently the problems under study were too controversial.

The foundations that previously provided funds for pioneering studies of racial and religious conflict have reduced their grants or eliminated them entirely. The Federal Government itself is spending millions of dollars in this field but unhappily none of this money is going to badly needed scientific research.

I turn now to the Commission on Intergroup Relations of New York City and its uses of the Lewin heritage. COIR as we call it was established as a functioning city agency in 1955 with a larger budget and far greater powers of investigation and enforcement than any similar governmental agency in the United States. It was directed to

---

9 Marrow, A. J. Behind the Executive Mask; American Management Association, N.Y., 1964.
devise ways of dealing with tensions between people of different ethnic, racial, and religious backgrounds.

I served on that commission for five years (1955 to 1960), four of them as chairman under appointment by Mayor Robert Wagner.

My association with CCI had been a major factor in my selection and I approached the assignment familiar with the difficulties yet confident that substantial progress could be made. I soon discovered my confidence was naive. I found that COIR—to a much greater extent than CCI—was a convenient target for a diversity of interests to snipe at: extremists of the left demanding drastic changes; extremists of the right opposing all changes; go-fast factions; go-slow factions; special interest groups demanding special privileges for their followers and crying “Discrimination!” when they didn’t get what they wanted. “Freedom” and “equality” were everyone’s ideal but only a few were willing to embody them in their own behavior.

I recognized then and do now that this is a condition intrinsic to the democratic process but I believe that it need not be an insuperable obstacle to accomplishment.

COIR had to deal with urgent problems requiring immediate action. The kind of situations in which we were involved may be discerned from a brief review of three incidents. The first occurred a few minutes before midnight on Saturday, September 21, 1958. I was at home reading when my telephone rang. Police Commissioner Stephen P. Kennedy was calling from Harlem Hospital. He said, “I’m at Harlem Hospital. Dr. Martin Luther King has just come out of surgery and the outlook is favorable. May I come to your house to discuss the situation.” The evening newspapers, the radio, and television had already flashed the news that Dr. King had been stabbed in a Harlem bookstore.

Through the still small hours of the morning the Police Commissioner and I discussed the problem to be faced the following day in Harlem and other Negro neighborhoods. The attack on Dr. King had already caused wild rumors in Harlem: that the White Citizens Council had hired an assassin to murder Dr. King; that the police knew Dr. King had been threatened, yet had done nothing to protect him; that there had been a deliberate delay in getting Dr. King to the hospital. These were some of the rumors carried that night from person to person in a mounting tension among the crowded tenements and on the street corners of Harlem.

So we went into action. The rumors carrying misinformation were answered by accurate information. Community leaders were consulted. The results of these and other steps were to calm a situation that threatened to explode into violence.

Another kind of situation, this one with worldwide repercussions, arose when a resident of Forest Hills, New York sent his 15-year-old
son to take tennis lessons at the West Side Tennis Club near his home. After the boy had had several lessons the coach suggested his joining the club as a junior member. Accordingly the boy's father telephoned the club president to ask how to become a member. The father was Dr. Ralph J. Bunche, Under Secretary of the United Nations. As Dr. Bunche later told me, the president of the West Side Tennis Club had bluntly advised him that the club's policy was not to admit either Negroes or Jews as members. Again we took steps. Most of you remember the outcome. The reaction in the city, across the country and around the world was such that the president of the club resigned and Ralph Bunche, Jr. was invited to join the club.

Still another kind of problem, perhaps the most potentially dangerous, took shape at dusk of Memorial Day 1958. Julio Ramos, a Cuban youth of 23, and his girl were seated quietly on a bench in Jefferson Park. Suddenly he was set upon by six Italian youths who, before the eyes of the horrified girl, beat Julio to death. The young Cuban and his girl had taken a bench in a section of the park that by an adolescent gang's decree was "reserved" for Italians only.

The six alleged killers were quickly arrested, and the neighborhood went as quickly into turmoil. A Puerto Rican gang calling themselves the Victory Dragons sent warnings of retaliation to relatives of the Italians charged with the murder. An epidemic of racial outbreaks followed. There was a mass battle between Negro and white students in a subway station. This was succeeded by teenage riots, some involving whites and Negroes, others Negroes and Puerto Ricans.

These instances are samples of intergroup dynamics whose range and significance are best measured in big cities like New York. An unofficial census in 1960 put the number of "conflict gangs" at 150, all of them of an ethnic character. The conflicts started by the ethnic gangs—Irish, Italian, Negro, Puerto Rican—threatened a chain reaction of still greater racial explosions among desperate, fearful, and easily panicked adults. That COIR should intervene was indispensable and happily its intervention was effective.

Each situation called for immediate action to reduce the likelihood of riot and disorder. We could not wait for our research into "facts." We had to rely on applying certain postulates—postulates of group dynamics to reduce community tension.

The postulates proved reliable because formulated in them was a more mature understanding of the nature and causes of tensions between people and of the methods by which these tensions might be released. We sought to utilize whatever disciplines applied: psychiatry, sociology, social psychology. Not infrequently we had to act so quickly that decisions had to be made on the basis of our intuitive insights, made sharper by our firsthand observations of the intergroup struggle.

Some may argue that as scientists we must wait until all the
evidence is in, until we know more about why people in groups behave as they do. I cannot agree. We can't wait for all the evidence. We must try to end gang wars, ease neighborhood tensions and speed community integration using the knowledge we now have. Such action itself leads to more reliable knowledge. Thus we revert to Lewin: action becomes research, research becomes action.

Our experience also led us to conclude that an intergroup relations agency must be independent enough to resist political influence and yet flexible enough to work within a political system. It must be kept immune to the pressures of ethnic, racial and religious blocs and yet it must be able to work cooperatively with them all. It must have a staff that meets the highest educational and professional standards, yet it must avoid what Robert Merton called "group soliloquies." Finally, it must persuade minority members that they cannot rely solely on government or on legislation; ultimately it is the citizenry whose reciprocal respect will make the law workable. This means that every possible technique must be tried to gain voluntary compliance by citizens to drastic changes in their social customs.

COIR faced an even greater dilemma in the problem of how to desegregate the schools. Leaders of civic groups fought to outmaneuver each other in drastic demands for "go fast" integration—regardless of consequences.

Deliberate segregation has been illegal in New York City schools since 1900. Nevertheless public schools in New York City have been segregated in fact for years because the school populations follow dwelling patterns. Today more than 75% of the children in Manhattan public elementary schools are either Negro or Puerto Rican. Nearly 1/3 of all the children in the entire city attend parochial or religious day schools. And the number of white pupils in the public schools seems likely to decrease. In cities such as Baltimore and St. Louis, where local school boards firmly desegregated their school systems, white parents simply removed their children from the schools. The result is the phenomenon we call resegregation; Baltimore, for example, has more segregated Negro schools now than it had before the Supreme Court decision in 1954.

Yet civil rights organizations, clergymen, well intentioned citizens and others continue to assert the educational value of forced racial balancing. The evidence is not at all clear.11

In fact few scientific studies have even dealt with the problem. Many school officials report that the stress and anxiety experienced by Negro pupils in newly integrated classes frequently inhibits learning. They report frustration, anger and lowered self esteem among

Negro children who find themselves ignored or overtly rejected by their white classmates in a desegregated school. The result can be serious damage to the personality of the Negro pupils when their deficiencies are exposed by their having to compete with more affluent and more culturally advantaged white children.

We know that there is little dependable knowledge about the extent to which the achievement of Negro children is impaired by these social inequities or how the Negro child is affected by unfriendliness in the white teachers.

Observations of school officials clearly disclosed that Negro pupils often led segregated lives in integrated schools. Negro parents in Princeton, New Jersey recently confirmed this when they reported that "white attitudes—conscious and unconscious," cause the "paralyzing" of Negro children psychologically and academically in their school work. In consequence, most Negroes wind up in the "dummy section," this in the school system that pioneered and gave its name to the "Princeton Plan" of school pairing to reduce racial imbalance.

If the principle of scientific evaluation of each step of an action research program were followed today, we would have some idea of how to better the methods of desegregating schools. We would seek out the conditions that lead to such unfavorable effects as isolation, rejection and feelings of inferiority. Barker, Dembo and Lewin as long ago as 1941 observed that pre-school children showed considerable regression in their play when placed in frustrating situations.

A Harwood Study of learning in an industrial setting showed that as a feeling of frustration accumulates the employee builds up a feeling of failure. Nearly 50% of all learners in an on-the-job training program who quit their jobs did so out of fear of failure.

When, to remove the threat of failure, the training program was changed to a planned series of success experiences, not only did performance improve sharply but the drop-out rate was halved. Is it not likely that similar feelings of frustration or fear of failure are causative factors in the Negro drop-out rate in schools? We need scientifically reliable answers on how to build success feelings.

It seems evident that desegregation of schools barely begins to be a solution to the basic problems of the Negro. By itself, it can hardly affect the primary relations between Negro and white. Much more is required—changes in the attitudes of Negroes and whites towards each other and, most important, changes in the Negro's attitude toward himself.

In the apathy and despair that afflict so many of our American

poor (of whom most are Negro) we see a verification of Kurt Lewin's formula: \( B = f(P + E) \)—behavior is a function of personality and environment. Here Lewin gave us a guide to measuring the relative importance of the two factors \( P \) and \( E \). "Let us," he emphasized, "take the situation as it is viewed by the participants themselves... Caste and class influence behavior," he said, "to the extent that they have become part of the personality of the individual through his needs and perceptual processes."

The situation of which Lewin speaks is a critical component of the problem. The behavior of the American Negro is based on an image of himself that he has shaped and transmitted over three centuries of his collective history—and the first three years, or perhaps less, of his personal history. This self image must be changed if the collective and personal history of the Negro is today to take a new and positive direction.

The Negro who is determined to face the challenge of changing his self image must have the courage to begin in the upbringing of his children; the courage to deal candidly with the Negro as well as the non-Negro causes of their condition and how to overcome them.

But the Negro parent who seeks to raise his children's sights must raise his own self image as well. Adults as well as children, confused by their status—as virtually all members of minorities are likely to be—feel unsure about themselves. They need help—adults and children—in defining their images of themselves as members of a group seeking a better future; in identifying those situations in which the fact of their belonging to a minority culture is pertinent and those in which it is irrelevant; and in appraising what they share with and what they do not share with the "majority" culture. As suggested by Isidor Chein,14 "We now want to know what are the conditions for perceiving communality of values despite differences and what are the conditions under which differences blind one to the communality of values."

"Minority group members," Lewin often said, "will rapidly learn to overcome their shortcomings if they can be induced to face them." It is neither healthy nor helpful, then, to meet shortcomings by crying "Prejudice!" Negroes can help themselves more, not less, by facing the statement that many of them are satisfied with low achievement; are apathetic toward self improvement; have a high crime rate (especially for crimes of violence); often are disciplinary problems in school; fail to support their own organizations; and too frequently depend on the generosity of whites.

Because he knows these statements are at least in part true, the Negro's self image is a depressed one. To lift it he must recognize the reasons for this partial truth, so that he may overcome it.

The Negro self image has to be strengthened to the point where
he sees himself as a person who can choose to live in a segregated com-
munity or an integrated one—as he sees fit—and who can apply for a
job as a school bus driver or school principal and list his race with
confidence and with pride. When the whole Negro community is able
to realize this too, it will have become part of the union of the diverse,
as Horace Kallen put it, of that unique America in which different
people know themselves to be equal as different and choose for them-
selves whether or not to preserve their separateness.

There is a point Lewin made for members of all groups to ponder.
“To reverse self segregation,” he said, “a minority should demand sub-
stantial sacrifices from its members. Sacrifice gives each member a
greater stake in the group; he will not falter in a cause to which he
has given so much of himself.”

What is needed in this whole area of discontent is a coordinated
scientific program of nationwide dimensions under Federal sponsor-
ship but conducted locally to deal with problems in both short range
and long range categories.

Social scientists have demonstrated that attitudes, motives and
behavior can be measured and modified. A well developed methodology
is ready for use. These methods could yield results which would ma-
terially reduce human suffering, lessen the likelihood of riot and dis-
order and ultimately save billions of dollars. Obviously only the Fed-
eral Government could be responsible for a program of this magnitude.

I now turn to my third instance testifying to the seminal influence
of Kurt Lewin. This is our joint experience in an industrial setting in
the plant of the Harwood Manufacturing Corporation of which I was
an officer. Lewin first visited the Harwood plant in 1939, when we
initiated a collaboration between psychology and industry that now
has continued for a quarter of a century during which there has been
applied the postulates of group dynamics to the problems of manage-
ment.

The conception of labor-management relations which guided
management at Harwood when Lewin first came to it was what is
usually called “enlightened.” Harwood’s key executives believed that
the productivity and profits of a business depend on the teamwork of
its personnel, that these are a function of the management of the men,
not merely the handling of machines. But they also felt they were not
using their human resources to best advantage; that somehow they
were failing to mobilize their employees’ “will to work.” It was their
hope that the then new psychology might help define a policy of
human relations that would bring about a more satisfying man-to-man
relationship and a more willing and active cooperation in the day-to-
day work.

Lewin proposed a program of action-research into the dynamic
relationships between group standards, resistance to change, group
decision and leadership training. Alex Bavelas came from the Uni-
versity of Iowa to direct the inquiries; when he was called to other
duties, John R. P. French, Jr. took his place. In due course other mem-
ers of the Research Center for Group Dynamics helped Harwood plan
and execute its on-the-job action-research.

The original studies began with small groups of from three to five
production workers. Over the years the inquiries have been expanded
to include as many as 1,000 employees at all managerial levels in five
plants as Harwood grew and expanded.15

The record of the inquiry from 1939 to date may well be without
parallel. Its practically continuous research and application provides
data for a scientifically grounded long view rare in any of the social
sciences.

To summarize the experience of 25 years we may, for example,
say that workers' participation in planning, decision making and so
forth requires time to develop. Where workers have been conditioned
to blind obedience, where they have been ruled with a heavy hand for
long periods, they may interpret any sudden change in the emphasis
on authority as a sign of weakness in the management.

This became quite apparent at a new Harwood plant in Puerto
Rico. The manager, who was not Puerto Rican, had actively begun to
encourage employees to participate in problem-solving meetings. Soon
after the personnel manager noticed a sharp increase in employee
turnover. His inquiry into the reasons revealed that the workers had
decided that if management was so ignorant of the answers to its prob-
lems that it had to consult its employees, the company was badly
managed and would soon fail. So they quit to look for jobs with well
managed companies that did not consult their employees but told them
what to do.

The induction of employees to participation in decision-making
of any kind or degree must be gradual. Workers who have long been
treated like children do not, any more than children, grow to maturity
in a day; employees do not learn to work independently by being kept
dependent. Only slow and careful reeducation can change their
habitual relations to their bosses and their work.

This is one of the significant accomplishments of the ongoing
action-research at Harwood. It attained the practical objectives
which management there endeavored to satisfy; they were maximum
job satisfaction, maximum company production. Central to the Har-
wood philosophy is a recognition that every employee can make a
contribution to the company economy not limited by his skill as a
workman on the job. It recognizes that the more excellent his perform-

ance, the greater his satisfaction and the greater the employee's benefit. It, therefore, maintains its organization by taking into account individual as well as company goals. Harwood employees are trained to assume responsibility and are given the opportunity and the authority to exercise it.

At Harwood it was possible to carry out Lewin's commitment to seek a scientific understanding of group life never far removed from close contact with everyday life. "A close link with practice," he often stated, "can be a blessing for the development of theory." Both scientific and practical objectives were pursued—sometimes concurrently, at other times independently. Experimentation was, of necessity, subordinated to practical factory needs and promising research was often interrupted because of unexpected changes in production schedules or operating plans.

In the course of 25 years substantial evidence has been accumulated to support the original views of Lewin and more recently those of Argyris, Bennis, Likert, McGregor, and others, on the need to develop new organizational practices and to change traditional principles of management if the interpersonal and intergroup needs of the employees are to be satisfied as company performance is improved.

In 1962 the Harwood organization took over a competitor, the Weldon Manufacturing Company. The two concerns were about the same size, both employed about 1,000 people, their plants were about the same age—30 years—their product was similar, both sold many of the same accounts and at competitive prices. But in one respect they differed. What it was did not appear until some months after Harwood acquired Weldon. The managerial styles of the two organizations diverged widely. Where Harwood encouraged employee participation in planning, problem solving, goal setting and decision-making, Weldon operated under the traditional authority-obedience system.

Making Weldon a unit of Harwood therefore provided a unique opportunity to study the two modes of management and how they affect employee productivity and job satisfaction as well as the economic health of the companies. The first step was a comparative study of the two companies on the crucial cost factors: man-hour productivity, skill level, standards of performance, turnover, waste, general efficiency, and readiness to innovate. Here it was found that the Harwood plant operating under participative managerial principles was superior on each of the items.

The second step therefore was a challenge to Harwood. Could the Weldon managerial relationships of supervisors and employees be changed to one of interdependence, participation and shared responsibility? Could fixed habitual attitudes be unfrozen? Could they be replaced by their contraries and could those be stabilized? For example,
how could the Weldon supervisory staff be motivated to assume greater risks, make more decisions and accept greater responsibilities? Could they change their attitudes towards their subordinates and encourage them to participate more freely in defining how best to work at their jobs? Harwood's problem was to muster the experience of action-research so as to change from the Weldon to the Harwood style of employer-employee relations in the quickest, easiest and most fruitful manner for all concerned.

Lasting changes could be achieved by applying Lewin's prescription for change: first unfreezing the present level; second, moving to the new level, and third, stabilizing on the new level.

Estimates of the time required to bring about the desired changes in the existing employee attitudes and managerial practices ranged from four to six years. The technological changes it was believed could be completed in one year.

The implementation was begun in July 1962, six months after Weldon became a unit of Harwood. To the engineering and production specialists from within the Harwood organization, which management assigned to Weldon, it added representatives of four outside technical consultants. In addition Harwood employed Stanley Seashore and David Bowers of the University of Michigan as psychological consultants to measure, interpret and analyze employee attitudes. They were also to observe the events that took place, record what was done, what happened, and what changes in attitudes and behavior occurred.

A second team of behavioral scientists, Gilbert David and Robert Pearse, was employed to design and carry out a program of specific changes to increase managerial competence, improve interpersonal relations and introduce employee participation in problem solving and decision making.

Harwood called in these two separate groups of psychologists mindful of Stanley Seashore's observation that "For practical reasons the research plans in field experiments should, in many cases, provide some kind of division of labor between those who do the theoretical, analytic and interpretive work, on the one hand, and those who engage in active and personal interventions in the subject organization."

Thus the University of Michigan consultants, Seashore and Bowers, began collecting their data about six months after Weldon was acquired. By means of observations, interviews, questionnaires and other diagnostic devices they surveyed all levels of management (about 50) as well as production workers (about 1,000).

They found the Weldon managerial group confused by apparent

---


inconsistencies and contradictions in policy. They found the morale of the production workers low and many planning to seek other jobs.

The few harmonious relationships reported were overshadowed by numerous complaints of interpersonal conflict. People in the chain of command faithfully took orders from those above them but had little or no opportunity to exercise a measure of authority on their own.

The top management having been advised, the standard steps for improving attitudes were taken. But it must be noted that during the first year after Weldon was incorporated in Harwood the chief task was to provide the plant with the technological improvements it so much needed.

When this was being done attitudes and behavior of the staff continued as they had been. The old fears, suspicions, conflicts, disagreements continued to characterize their relationships to one another.

As soon as possible during the second year a program of Sensitivity Training was provided for all levels of management under the direction of David and Pearse, with dramatic results. An immediate change in morale was apparent. Managerial competence was significantly improved. Supervisors began to deal more effectively with interdepartmental conflict and personal rivalry.

A sense of increased self confidence was expressed by supervisors because of the new understanding they had gained of themselves and others. Many referred to the Sensitivity Training program as among the most important experiences of their adult life.

David and Pearse continued to help the staff resolve their interpersonal problems through individual counseling, through group meetings devoted to problem analysis and problem solving, through skill training, and through occasional brief refresher sessions using T-Group methods.

The improvements in cooperative relationships were noted by the technical consultants and production workers as well as by the Michigan researchers. The change in motivation and morale was reflected in the following ways:

Average earnings of piece rate workers increased by nearly 30%. At the same time total manufacturing costs decreased by about 20%. Turnover dropped to half of its former level. Length of employee training was substantially reduced. Interviews by the Michigan consultants reflected vastly more friendly attitudes towards the company. The image of the company in the community changed and the organization began to show a profit.

This was attained without a single replacement in managerial or supervisory personnel at the plant. All the original members of the staff continue in their same jobs.

The basic wage structure has not been changed. The increases in
earnings were a result of heightened motivation and improved managerial skills. Increases due to technological changes were adjusted within the existing rate setting structure.

In the Harwood-Weldon study there was a united effort on the part of engineers, accountants, psychologists, and technological consultants to work collectively for practical answers that would please the profit conscious executive without neglecting the humanization of managerial skills or employee satisfactions.

The three year period assigned for this study does not end until next January 1, 1965. The methods described continue in use. They are in large part distinguished by the characteristics of action-research; they are conducted jointly with people who want practical answers; they are performed under factory rather than laboratory conditions; they include measurement of attitudes and behavior changes both before and after the action steps.

To link knowledge with application is admittedly a difficult task. But industry has found that science is ultimately the most effective means of understanding and meeting its human problems.

Is the same outcome possible in dealing with the critical problems arising out of the conflicts among racial and ethnic groups? Can we repeat our success there? Will the same approach work?

I believe it can. The road is long. The risks are great. The outcome uncertain. But there is encouraging evidence that solutions to the problem of prejudice and discrimination may be available in the science of human relationships of which Lewin was a prophet and a pioneer.