

Tenth Annual Report

THE INDUSTRIAL RELATIONS SECTION
MASSACHUSETTS INSTITUTE OF TECHNOLOGY



SOME HIGHLIGHTS OF OUR FIRST DECADE

Ten years ago this fall the four or five of us who comprised the staff of the newly founded Industrial Relations Section here at M. I. T. were spending long hours discussing how we could best achieve the objectives which had been established. These were, in order of importance:

- (1) to aid in "humanizing" our undergraduate engineering students by giving them some understanding of the human as compared with the technological problems of industry;
- (2) to conduct research in industrial relations;
- (3) to provide library and informational services to business and industry generally and to our sponsors especially.

We had two convictions. The first - recognized in the composition of the original staff of the Section - was that there would be value in bringing men from a variety of disciplines to work together in the field of industrial relations. Up until the 1930's the economists had largely pre-empted the field. However, it was becoming apparent that sociologists, psychologists and social anthropologists had something to contribute. Accordingly, our initial staff included both a sociologist and a psychologist, and we added an anthropologist a year later.

Our second conviction was that, in this field of industrial relations above all, the ivory tower scientist is out of place. While there was a large body of literature on the subject, most of it reflected attempts to deal piecemeal with particular situations or problems, and the rest was chiefly armchair speculation. It was not clear just what were the important variables. Obviously, a good deal of direct first-hand observation in industrial organizations was needed in order to identify the basic variables and to formulate realistic hypotheses concerning their inter-relations.

Accordingly, we agreed that each member of our staff should spend roughly a third of his time actively working in industry as a researcher,

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consultant, observer, arbitrator, or whatever else appeared worth-while. The important thing was to keep in close touch with day-to-day practical problems so that, on the one hand, we could begin to formulate fruitful hypotheses for research, and on the other, we could carry a realistic knowledge of industry back to the classroom.

These two basic convictions with which we started have been strengthened with the passage of time. During the ten years, we have been immersed in a great variety of activities. We have encountered the whole gamut of industrial relations problems in many different plants: contract negotiation, wage and salary administration, the formulation and installation of personnel policies, grievance procedure, suggestion plans, employee benefit programs, foreman and union steward training, conciliation and arbitration, to mention but a few. We undertook an intensive study of the movement of workers within an industrial community, a task which initially involved all of us in cooperative research. The study was carried to completion by two members of the group, but we all learned a good deal from our joint efforts.

To our surprise we have found that, despite our differences in background and training, we can agree without too much difficulty concerning the best solutions for most of the concrete practical problems we encounter. While we can argue interminably about the general principles of economics or of psychology, we find little to argue about when the question is, "What should be done in this or that practical situation?" We have acquired practical skills in dealing with the problems of industry, and we have discovered that our knowledge of real-life situations is of inestimable aid in teaching.

However, we were aware early in our history that the immediate solution of specific problems was not an end in itself. Being "outsiders" to the situations in which we worked, we were able to take a relatively long-run view. We saw that the opportunistic handling of specific isolated problems, while it might solve the immediate dilemma, often failed to have the desired

long-run effects on the success of the enterprise. Gradually our attention became centered on a fundamental question: Just what were we trying to accomplish? We were not idealistic dreamers; nor, on the other hand, did we want to be mere plumbers fixing leaky pipes and replacing valves.

Ultimately, we saw the problem in rather simple terms. The long-run economic success of a business enterprise hinges directly on the achievement of healthy human relations. After all, an enterprise is an organization of people who must work together if organizational objectives are to be achieved. We found ourselves in a position analogous to that of the clinical man in medicine or psychiatry. Our "patients" were the particular firms with which we were working. Our objective was not the immediate one of alleviating pain or treating symptoms, but the more fundamental one of making the patients healthy so that they could resist disease.

Although the problem could thus be simply stated, it could not be simply solved. Just what is health in an industrial organization? There are a great many assumptions purporting to answer this question. As we examined them they seemed to us to be isolated and unrelated assumptions. They were often contradictory. Many of them were little more than rule-of-thumb precepts.

We came to believe that the most important objective in industrial relations was the development of an integrated theory of organized human effort. We needed above all a systematic statement of the conditions under which people could be expected to work successfully together toward an economic end. For the last half dozen years, a major part of our effort has been directed toward the discovery of these necessary conditions.

Today we have a theory. It is tentative, to be sure. It is being modified from time to time on the basis of our experience and our research. We have been materially aided by the fact that the members of our staff have a variety of backgrounds. To some extent at least, our theory represents an integration of ideas from all the social sciences. It is, to be sure, an unconventional theory which does violence to some of the sacred tradi-

tions of the disciplines from which we have come. Moreover, it is a simple, almost common-sense theory involving very little hocus-pocus and requiring little in the way of elaborate terminology or complicated logic.

A number of other groups around the country, - notably those at the Harvard Business School, Yale, and the University of Chicago - have felt with us the prime necessity for an adequate theory of human relations in industry. They too have been working toward that end. Although our approaches have been different, it has been interesting to discover how little fundamental disagreement there is among us.

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Inevitably, while we worked to develop an adequate theory of human relations, we found that we faced another equally important problem. Not only was it necessary to know what we were trying to accomplish; it was just as necessary to know how to accomplish it. Thus we became critically conscious of the problems of method in our work.

We discovered rather soon that it is relatively useless to tell people the answer to the problem they are seeking to solve. Advice of this kind, even when it is right, is seldom taken; moreover it often puts people on the defensive to the point where they can no longer see the problem objectively. There seems to be a considerable difference in this respect between attitudes toward purely technical problems and problems of human relations. Every individual tends to consider himself something of an expert in dealing with problems of human relations. After all, he has been dealing with them since birth. He has developed many opinions and attitudes about people and these are usually colored by his own emotional adjustment, his unconscious insecurities, his fears, his enthusiasms. Consequently, the problem of finding the objectively best answer is a difficult one.

We have learned an important lesson in this connection: When the proper conditions are created, the people in the organization who face

a problem in human relations usually have at hand most of the essential knowledge to discover the best answer. As a matter of fact, they can often find a better answer themselves than the outside consultant can give them. The ideal is to create a situation in which they can find that answer without being too greatly hampered by their own emotional habits and biases. Accordingly, a fundamental methodological problem is the one of creating those conditions in a given situation.

Another related aspect of method appears to be critical. It was with a distinct shock that we came to a full realization of the limitations of words in this area of human relations. The facts are fairly obvious when one stops to think about them. The solution of many problems in the field of industrial relations requires skills in dealing with people. The skills may be those required in negotiation of the union contract, in analyzing a problem and planning a solution with a group of subordinates, in handling a disciplinary problem with workers, or in a wide range of other situations. The fact is that such skills cannot be taught with words alone. It is a common experience to work with a group on a purely verbal level until unanimous agreement is reached as to the principles governing some area of human relations. Everyone says "yes," he understands; he believes that the agreed-upon principles are the right ones. But then little or nothing happens. Everyone goes on behaving more or less as he always has. His verbal understanding and agreement have had an insignificant effect on his actual behavior on the job.

The same problem is encountered to some extent in teaching any skill. We do not become good golfers or good machinists simply by reading books, or listening to lectures. However, the problem is elaborately complicated in the area of skill in human relations by emotional factors. Our whole personal security so often rests on particular ways of thinking about such problems, on long-established attitudes, on long-established habits of dealing with people, that any change is threatening. We can accept the idea of change on the purely verbal level when we are forced to do so, but to translate words into action is something else.

We have had to find methods in our work for overcoming this resistance to moving from the level of "talking about" to the level of "doing." The case method, as we have developed it here, has proved a valuable way of getting closer to the action level. The analysis of cases helps to reveal the complexity of reality, and to force attention on the practical compromises with ideal solutions which are almost always necessary.

The method of "role playing" developed originally by Kurt Lewin and his students has also assumed a key place in our approach to this problem. It consists essentially in dramatizing spontaneously particular concrete situations relating to the problem under consideration. Members of the group then act out their proposed solutions rather than merely talking about them. Properly used, this method can be a powerful tool in overcoming the "action barrier." However, its effective use presents many difficult problems. There is a real need for better knowledge of the techniques which can be used to supplement and offset our quite natural tendency to rely too heavily on words alone.

Our experience to date leads us to believe that perhaps the major way of achieving the objective of healthy human relations in industry is the development by management of a sound philosophy. We use the term "management philosophy" in the sense of a way of thinking and behaving in the industrial situation. Because success depends so much upon the day-to-day, face-to-face relationships between people, and the way in which immediate problems are met and solved, it hinges upon the existence of a common point of view and consistent habits of action. These must permeate the whole of the management organization to be effective.

Consequently, the current emphasis on management training seems to us eminently sound. However, in view of the methodological difficulties outlined above, we suspect that a good deal of what is called management training actually accomplishes little. Until a given management organization has developed its own theory of healthy human relations, and acquired the skills necessary for the habitual application of that theory in everyday

situations -- until it has overcome the severe obstacles in the way of translating verbal understanding into action on the job -- it has no philosophy. Training in the ordinary sense of the word is a misnomer for this process. "Management development" is probably a better phrase. In such a process, management itself must do the job. The consultant or the trainer acts somewhat like a chemical catalyst. He can help to create the conditions under which the development takes place, but he cannot provide the solutions to the problems; nor, we believe, can he himself teach a philosophy which will result in effective action.

This whole question of method presents some extremely complicated problems. We have only begun to scratch the surface with respect to many of them, but we are encouraged by our progress. At least we have learned through sad experience many of the things which will not work. We have under way today a series of clinical research studies in real life situations bearing on these methodological problems which are closely connected with the achievement of healthy human relations in industry.

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Naturally, all these developments have had their simultaneous effects in our classroom teaching. The development of theory has aided in the organization of the content which we attempt to teach our students. Our growing concern with the problems of method has made us critical of most traditional classroom techniques. Much of what normally passes for education -- in the social sciences, at any rate -- consists of getting the student to learn a complex mass of words which he can then parrot back to the instructor on a final examination. Such purely verbal learning has little effect on the attitudes or behavior of the student when he leaves the classroom. In fact, since he has been led to believe that his verbal equipment is knowledge, he may be less able to learn from experience than if he had never studied the subject at all. Education of this kind is of dubious value, especially in the field with which we are concerned.

We have conducted many experiments in our classrooms in the attempt to apply what we have been learning in industry. There are, of course, limited possibilities with undergraduate students. At most, we can only hope to help them acquire a broader point of view, a certain tolerance, and above all a high degree of caution in approaching the problems of human relations in industry.

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The third objective of the Industrial Relations Section is that of service to industry. We have developed an excellently staffed and equipped library, and we provide a variety of informational services both to management and labor. We have not, however, put as much emphasis on this third objective in the direct sense because we have felt that the achievement of the first two objectives of the Section represented in the long run a more important contribution than any of the more immediate, practical things we could hope to do. If we can succeed in exerting even a small influence on our engineering students, many of whom enter managerial jobs within a few years of school, we shall have rendered a service of fundamental importance to the cause of successful human relations.

We are today considering one other service activity. Since the war began, we have done relatively little with industrial relations conferences because we felt that there were already an adequate number of them each year. There seemed to be little point in our duplicating what many other people are already doing effectively. However, we are now considering small seminar conferences for selected groups of top executives. The purposes of such conferences will be to examine critically some of the broader and deeper problems which have been referred to above. We propose to try out the idea this year, and if it is at all successful, to repeat it for other groups according to the demand. It does seem as though there may be value today in attempting to go beyond the usual, frequently superficial, conference treatment of specific personnel administration techniques to a consideration of the underlying problems of a theory of

sound human relations in industry and of methods for achieving them.

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Looking back over our first ten years, it seems fair to say that we have made some progress toward our objectives. With respect to the objective of humanizing the engineer, we have developed some definite ideas and we are experimenting with practical methods, thanks largely to our experience in industry. We have embarked now on a four-year program of engineering and human relations at the undergraduate level, which will test our ability to the limit. This program is described in more detail in a later section of this report.

With respect to the objective of research in industrial relations, we have contributed to existing knowledge through our research on the movement of workers and other studies. We have developed a preliminary and tentative theory of organized human effort which has the advantage of being systematic and integrated, and of having its roots in realistic observation and experience. Through our clinical approach, we have been aided in keeping this theory at a simple, practical level. In addition, we have made some progress in the development of methods for achieving healthy human relations.

Whatever we have accomplished in the direction of service to industry beyond our library and informational services can be measured only in the long run through our influence on our students. We are optimistic today about what we can do in this direction; but it is too soon to do more than indicate our hopes.

Douglas McGregor

ACTIVITIES OF THE SECTION TODAY

Organization and Personnel

The Industrial Relations Section at M. I. T. is a division of the Department of Economics and Social Science. It is supported in part by funds contributed by some sixty companies and individuals, and in part by Institute funds. There are today nine people spending part or all of their time in the teaching activities of the Section. Three of these are economists, four are psychologists, one is a sociologist, and one was until recently research director of a large international labor union. In addition, there are a librarian, an administrative secretary, and several research assistants. A complete list of members of the staff appears at the end of this report.

Teaching Programs

Our teaching activities are divided into three major parts. First there is a four-year undergraduate program which was started a year ago. Students interested in electrical, mechanical, or chemical engineering can elect this program, called "Engineering and Human Relations," at the end of their freshman year. They get basic engineering training equivalent to that required by the New York State Licensing Board, but they do not get the degree of specialization in the engineering field which a full-time engineering student would get. During the last three years of their program the subjects which they take in human relations cover at least the more important aspects of this field with some thoroughness.

It is not our major purpose in this program to train personnel men or staff experts. Some sixty per cent of M. I. T. graduates are found in managerial jobs within ten years of graduation. Our purpose is to train men who will go into industry in exactly the same way as the usual engineering student, but to give them, if possible, a better understanding of the human problems they will encounter. At present we have between twenty and thirty students in this program, and we expect to have about twenty entering it annually during the next few years.

Among the subjects which these students take is one in labor relations, a specially designed course in psychology emphasizing the theory of human relations, a subject called "Techniques for the Management of People" which makes extensive use of role-playing for teaching some of the more elementary skills, a course on the theory of the management of people which is arranged to follow the skill course so that the student may generalize on his specific experience, and a course on the nature and objectives of personnel administration.

The second phase of our teaching activity is a graduate program leading to the Ph.D. in industrial economics and industrial relations. Students in this program fall roughly into three groups: (1) those stressing industrial economics per se, (2) those majoring in industrial relations with an economics emphasis, and (3) those majoring in industrial relations with a human relations emphasis. There are sixteen students currently in the second and third of these groups. In these programs, the goal is professional training of high caliber. We have many more applicants than we accept, and we have tried to do a very thorough job of selection. Our desire is to have students of the highest intellectual capacity who are in addition well balanced and broad-gauge people. We have scholarship and fellowship funds contributed by various companies and organizations for a few exceptional students.

In the graduate program the basic content is not dissimilar from that in the undergraduate program, but it is both more extensive and more intensive. One group of seven students, for example, has begun this fall a "laboratory" course which will last probably a year and a half. It is centered upon the methodological problems discussed in the first section of this report. These graduate students will use undergraduate classes as their laboratory, and they will have an opportunity to practice a variety of techniques of leading groups of students in the classroom. Later on in their development, we hope to work them into the approximate equivalent of medical internships in actual industrial situations where

they can observe and practice the things they are learning now in the classroom.

Illustrations of other subjects available to these graduate students are the following: (1) a course on the techniques of personnel administration taught by the director of personnel administration for a large industrial company in the area, (2) a course on the administration of the labor agreement given by the former research director of the United Steelworkers union who was referred to above, (3) a course on organizational structure in industry involving a detailed analysis of line and staff functions, and of effects of various kinds of organizational structure upon human relations problems, (4) a theoretical seminar involving an examination of the conditions under which healthy human relations in industry may be achieved, (5) an advanced course in the theory of economic development, (6) a seminar on the process and consequences of technological innovation in industry, (7) a course on labor economics and public policy in labor relations, (8) an advanced course in labor relations taught by a man with wide experience in the arbitration of labor disputes.

The third aspect of our teaching activity is what we term "service teaching." We give two undergraduate subjects on human relations in industry and on labor relations, one or the other of which is taken by approximately two-thirds of the Tech undergraduate students during their third year. Those subjects are part of the regular M. I. T. Humanities program. In addition, we teach specific subjects which are "electives" in the programs of students in a variety of different fields. A number of these are especially designed for students in the Business and Engineering Administration program. Others are taken by students in Marine Engineering, Chemical or Electrical Engineering, City Planning, etc. Although these subjects are necessarily limited in scope, we feel they are worth while if we can succeed in giving the typical engineering undergraduate at least a glimpse of the complex problems of human relations

which he is likely to face upon completion of his undergraduate training.

Research Projects and Other Activities

Certain of our activities outside of the classroom have been broadly described in the first section of this report. A few others are listed below to give some idea of the breadth of interest among our staff.

Professors Douglass Brown and Charles Myers are currently devoting half of their time to a comprehensive study of labor-management relations for the Committee for Economic Development.

Mr. Scanlon is associate director of a research program under the auspices of the National Planning Association. This program, involving fifteen detailed case studies, is focussed on "The Causes of Industrial Peace" in the attempt to emphasize aspects of industrial relations which are not normally news but which are nevertheless vitally important.

Professor Pigors is carrying on a research study of personnel problems in hospitals.

Professors McGregor, Knickerbocker, Bavelas and Haire are carrying on research and consulting work centering upon the problems of "management development" in several different industrial organizations.

Professors Brown, Pigors, and Myers, in addition to activities like those mentioned above, are frequently arbitrators of labor disputes on request of the parties.

Professor Maclaurin has just completed the manuscript of a book based on his research on the process of invention and innovation.

Professors Pigors and Myers have just published a textbook, Personnel Administration, which is a product of some of our experimentation with teaching methods in this field. It contains a number of cases for detailed analysis.

Mr. Scanlon is acting as a consultant to several firms in the Boston area who are experimenting with union-management programs similar to the now famous Adamson Plan.

Professor Haire is directing several research projects designed to test the effects of our classroom teaching methods upon the thinking and behavior of the student.

Library and Informational Services

The Section maintains a large reference library in the field of industrial relations. Not only do we attempt a comprehensive coverage of the relevant literature, but we maintain an extensive file of labor newspapers, of various company and union publications, and of union contracts.

The library published a bi-monthly annotated bibliography of current articles and books in the field. This bibliography is sent on request to any interested persons.

The librarian answers literally hundreds of requests annually for information and references on specific industrial relations topics. These requests come chiefly from industrial management and from labor unions, but some come from government officials and private agencies.

Public Relations

Members of the staff of the Section are being increasingly called upon as lecturers and speakers before a variety of organizations and groups. To the extent that our time permits we are always glad to meet such requests because they provide opportunities not merely to present our ideas, but to obtain a wider perspective concerning current thinking and practice in industrial relations throughout the country.

Publications

On the following pages are listed the publications of our staff members in the field of industrial relations. Reprints of the starred items are available upon request as long as the supply lasts.

LABOR ECONOMICS

"Employment Stabilization and the Wisconsin Act," Charles A. Myers, American Economic Review, December, 1939.

Industrial Wages Rates, Labor Costs and Price Policies, Douglass V. Brown, John T. Dunlop, Edwin M. Martin, Charles A. Myers, and John A. Brownell, T.N.E.C. Monograph No. 5, Government Printing Office, 1940.

"Stable Employment and Flexible Wages," Charles A. Myers, Personnel, August, 1940.

"After Unemployment Benefits are Exhausted," Charles A. Myers and W. Rupert Maclaurin, Quarterly Journal of Economics, February, 1942.

"Wartime Concentration of Production," Charles A. Myers, Journal of Political Economy, June 1943.

The Movement of Factory Workers: A Study of a New England Industrial Community, 1937-1939 and 1942, Charles A. Myers and W. Rupert Maclaurin, Cambridge, Mass., Technology Press (John Wiley, New York), 1943.

*"Wages and Profits in the Paper Industry, 1929-1939," W. Rupert Maclaurin, Quarterly Journal of Economics, February, 1944.

*"Experience Rating in Unemployment Compensation," Charles A. Myers, American Economic Review, June, 1945.

*"Approaches and Problems in Wage Research," Charles A. Myers, Papers and Proceedings of American Economic Association, May, 1947.

LABOR RELATIONS

"Compulsory Arbitration in Australia," W. Rupert Maclaurin, American Economic Review, March, 1938.

Social Problems in Labor Relations, Paul Pigors, L. C. McKenney and T. O. Armstrong, New York, McGraw-Hill, 1938.

"Workers' Attitudes on Work Sharing and Lay-off Policies in a Manufacturing Firm," W. Rupert Maclaurin, Monthly Labor Review, January, 1939.

"The Attitudes of Workers toward Lay-off Policy," Douglas McGregor, Journal of Abnormal and Social Psychology, April, 1939.

*Available upon request

"Industrial Relations and National Defense: A Challenge to Management," Douglas McGregor and Irving Knickerbocker, Personnel, August, 1941.

"The Urgent Problem of Labor Relations," Paul Pigors, Industry, Vol. 7, No. 1, October, 1941.

*"Union-Management Cooperation: A Psychological Analysis," Irving Knickerbocker and Douglas McGregor, Personnel, October, 1942.

*"Case Studies in Industrial Relations," Paul Pigors and others, prepared by Industrial Relations Associates, Inc., Cambridge, Mass., Addison Wesley Press, 1944.

Human Aspects of Multiple Shift Operations, Paul and Faith Pigors, Addison Wesley Press, 1944.

*"Adamson and His Profit-Sharing Plan," Joseph Scanlon, AMA Production Series No. 172, American Management Association, 1947.

PERSONNEL ADMINISTRATION

"Determination of Morale in an Industrial Company," Douglas McGregor and Conrad M. Arensberg, Applied Anthropology, January-March, 1942.

"Morale and Training of Leaders," Alex Bavelas, in Civilian Morale, Ed., Goodwin Watson, Houghton Mifflin, 1942.

*"Skills of Speech in Industrial Leadership," Paul Pigors and Alfred D. Sheffield, Industrial Relations Associates, Inc., 1942.

*"Getting Effective Leadership in the Industrial Organization," Douglas McGregor, Advanced Management, October-December, 1944.

*Personnel Problems of the Postwar Transition Period, Charles A. Myers, Supplementary Research Paper prepared for the Committee for Economic Development, New York, December, 1944.

*"Understanding as a Condition for Success in Order-Giving," Paul and Faith Pigors, Industrial Relations Associates, Inc., 1945.

*"The Foreman's Responsibilities in the Industrial Organization (A Case Study)," Douglas McGregor, Personnel, Vol. 22, No. 5, 1946.

*"Re-evaluation of Training for Management Skills," Douglas McGregor, AMA Personnel Series, No. 104, American Management Association, 1946.

*Available upon request

"Engineers and Industrial Relations," Charles A. Myers, Mechanical Engineering, Vol. 68, No. 12, December, 1946.

"The Challenge for Personnel Administration," Paul Pigors, Personnel, Vol. 23, No. 5, 1947.

"The Accident Process," Paul Pigors, National Safety News, Vol. 55, No. 4, April, 1947.

*"Role Playing and Management Training," Alex Bavelas, Sociatry: Journal of Group and Intergroup Therapy, Vol. 1, No. 2, June, 1947.

Personnel Administration: A Point of View and a Method, Paul Pigors and Charles A. Myers, New York, McGraw-Hill, 1947.

MISCELLANEOUS

*"Motives as a Tool of Market Research," Douglas McGregor, Harvard Business Review, June, 1941.

*"Economic Factors Influencing the Development and Introduction of the Fluorescent Lamp," W. Rupert Maclaurin and Arthur A. Bright, Journal of Political Economy, October, 1943.

*"The Organization of Research in the Radio Industry after the War," W. Rupert Maclaurin, Proceedings of the Institute of Radio Engineers, Vol. 33, No. 9, September, 1945.

*"Federal Support for Scientific Research," W. Rupert Maclaurin, Harvard Business Review, Spring, 1947.

*Available upon request

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