

ARI Research Note 97-23

The Psychology of Work in Europe: A Review of a Profession

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Foundation for the Study of Developments
in Industrial Psychology in Europe

**Research and Advanced Concepts Office
Michael Drillings, Chief**

August 1997

DTIC QUALITY INSPECTED &

19980130 129



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REPORT DOCUMENTATION PAGE

1. REPORT DATE 1997, August	2. REPORT TYPE Final	3. DATES COVERED (from... to) 1973-1976		
4. TITLE AND SUBTITLE The Psychology of Work in Europe: A Review of a Profession		5a. CONTRACT OR GRANT NUMBER DAERO-74-G-0075		
		5b. PROGRAM ELEMENT NUMBER 0601102A		
6. AUTHOR(S) Charles J. de Wolff and Sylvia Shimmin (Foundation for the Study of Developments in Industrial Psychology in Europe)		5c. PROJECT NUMBER B74F		
		5d. TASK NUMBER		
		5e. WORK UNIT NUMBER		
7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) Foundation for the Study of Developments in Industrial Psychology in Europe Nicolaas Maesstraat 122 Amsterdam, Netherlands		8. PERFORMING ORGANIZATION REPORT NUMBER		
9. SPONSORING/MONITORING AGENCY NAME(S) AND ADDRESS(ES) U.S. Army Research Institute for the Behavioral and Social Sciences ATTN: PERI-BR 5001 Eisenhower Avenue Alexandria, VA 22333-5600		10. MONITOR ACRONYM ARI		
		11. MONITOR REPORT NUMBER Research Note 97-23		
12. DISTRIBUTION/AVAILABILITY STATEMENT Approved for public release; distribution is unlimited.				
13. SUPPLEMENTARY NOTES COR: Michael Drillings				
14. ABSTRACT (<i>Maximum 200 words</i>): This review describes the contemporary scene of applied industrial and organizational psychology in Europe. After a historical introduction, the developments in six subject areas are reviewed: Selection, training, ergonomics, organizational psychology, quality of working life, and preservation of human resources. It is argued that there has been much differentiation and that there is a need for more integration. Psychologists perform several roles in organizations and in society. Some of the role conflicts are discussed.				
15. SUBJECT TERMS European industrial psychology European organizational psychology Psychologists roles Selection Training Ergonomics Working life quality Preserving human resources				
SECURITY CLASSIFICATION OF			19. LIMITATION OF ABSTRACT Unlimited	20. NUMBER OF PAGES 31
16. REPORT Unclassified	17. ABSTRACT Unclassified	18. THIS PAGE Unclassified		

ACKNOWLEDGMENTS

Grateful acknowledgement is expressed to the Foundation for the Study of Developments in Industrial Psychology in Europe, Amsterdam, to Hoogovens-IJmuiden B.V., to The Ohio State University, to the Istituto di Ricerche e di Interventi Psico-Sociali, Milan, and to the many psychologists who contributed their views and observations. Gathering these views was facilitated by a grant from the U.S. Army Research Institute for the Behavioral and Social Sciences (DAERO-74-G0075) through its liaison facility at the European Research Office, London. The opinions expressed are those of the authors alone.

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THE PSYCHOLOGY OF WORK IN EUROPE: A REVIEW OF A PROFESSION

Introduction

The aim of this review is to describe the contemporary scene in what is a growing area of applied psychology in several European countries. It is a picture of the current activities and concerns, operational and environmental constraints, and associated issues of professionalization affecting psychologists at the present time, but makes no claim to be an official, definitive account of applied psychology in Europe.

It has become increasingly clear that there is a need for some opportunity for the scientific community to discuss problems and strategies in the profession as much as the results of research and scientific theories. Whereas there is already a considerable provision for the latter, as far as we are aware there is no equivalent system for the former. What occurs is that information is exchanged and contacts are established almost entirely by chance, and it is, therefore, difficult to be informed about the work of professional colleagues. There is no establishment information system to which one can turn if one wants to discover what is the state of the profession. Whereas, in the past, it could be assumed that there would be tacit agreement among psychologists as to the nature of their work and their professional role, now the demands made upon them are so varied and the circumstances in which they work are so diverse that such agreement can no longer be assumed. In particular, we lack professional guidelines established as the result of mutual discussion, and we lack the exchange of opinions among practitioners.

Subject Area

In deciding on "The Psychology of Work" for the title of this review, we are fully aware that this is a subject area with no fixed boundaries. Indeed, in Europe there is no common term by which it may be designated appropriately. For example, in Britain the preferred term appears to be "occupational psychology" with "industrial psychology" now more or less obsolescent; whereas, on the mainland of Europe,

"psychotechnics" was formerly widely accepted but is now hardly ever used. "Personnel psychology" is a relatively unfamiliar concept and is not to the fore.

One factor which has influenced recent developments is the awareness that psychology is not solely applied in industrial organizations and this, together with the growth of organizational theory, has led to a broad area of professional activities which may be termed the psychology of work and organizations. As a result, traditional industrial psychology associated with individual appraisal and vocational counseling has become a subsection of an emergent professional field which includes selection, organizational psychology, training, human factors, preservation of human resources and personnel research. All sorts of organizations-employers, trade unions, government bodies-have come to recognize and express a strong need for the scholarly contributions, methodological rigor, and practical assistance of this emerging field.

This has required that "industrial psychologists", as we shall refer to them for want of a better term, change their approach from one centering on attaining the best fit between the individual and his job, in which the technology is taken for granted, to one which takes account of the organization as whole and regards both structure and technology as susceptible to instrumental changes.

Historical Background.

Although the rapid growth in the psychology of work is commonly thought to be of recent origin, in all countries considered there was pioneering work by a few individuals in the first quarter of the century and even earlier. To name but a few examples:

1889 L.O. Patrizi founded a Laboratory of Work Psychology in
Modena, Italy

1908 Lahy - Work design and selection for railway engineers,
France

1911 Hugo Munsterberg as a guest professor lecturer at the Uni-
versity of Berlin, Germany

- 1918 Establishment of the Industrial Fatigue Research Board in England
- 1919 Walther Moede, Germany and Fanziska Baumgarten, Switzerland start selection testing programs
- 1920 Establishment of the Institute for Psychotechnics at Krakow, Poland
- 1920 Claparede and Walther establish the "Conseil International de Psychotechnologie" at Geneve, Switzerland.

The twenties were a fruitful period, with much cross-national collaboration and development, and further details can be found in Spaltro (1974), Le Plat (1971), and Baumgarten-Tramer (1971).

The nineteen thirties, by contrast, was a decade of little growth to which a contributory factor, particularly in Germany, was the clash between the German Psychological Association and the Nazi Government, as a result of which many psychologists left to work in other countries, particularly the USA. Likewise there were few significant developments during the period of the second world war, except in Britain where the work of psychologists was highly related to manpower requirements in a period of emergency. Here the deployment of psychologists on a variety of problems provided the stimulus for much applied psychological research, the impact of which was seen in the immediate post-war period, e.g., the Tavistock Institute, use by the Civil Service Selection Board of the War Office Selection Board procedures. Most of the activities before 1945 were, however, especially on the mainland of Europe, on a relatively small scale and individualistic.

Starting from the immediate post-war period the growth of psychology in all countries has been extensive. This is shown by the establishment of formal training programs at universities and of independent research groups. Even in Britain, where there were some degree programs prior to 1940, the period saw the establishment of new departments of psychology at a number of universities. In addition, the last decade has seen a great increase in the number of polytechnics and schools of business or management in which psychology forms a component of training programs of a different kind

from those conventionally offered by universities.

TABLE 1
Estimated Numbers of Industrial Psychologists in Europe (by Country)

Country	Number	Source	Year
Austria	60	3	1975
Czechoslovakia	300	3	1975
France	500	2	1975
German Democratic Republic	200	3	1975
Federal Republic of Germany	450	2	1975
Italy	100	1	1975
The Netherlands	300	1	1975
Poland	500	3	1975
Soviet Union	700-900	3	1975
Sweden	300	3	1975
Switzerland	40	3	1975
United Kingdom	570	2	1975

1= Estimates based on a survey.

2= Estimates based on membership of professional bodies.

3= Estimates given by informed individual(s).

(N.B. The definition of "industrial psychologist" varies among countries).

Boundaries and Size of Field

Reliable statistics on the scale of the psychology of work and the number of industrial psychologists in different countries in Europe are extremely difficult to obtain and comparative data almost impossible. We have based our review on the best estimates possible, such as the results of surveys and membership of professional associations, but there has had to be some guesswork. It is clear, that the scale of operations varies considerably among countries, and it would seem that the number of industrial psychologists is fewer than one would expect from the overall rate of growth in the subject as a whole. However, this may be partly a matter of definition. The question of who should be categorized as an industrial psychologist is more complicated than we first thought because some psychologists work only

partially in this field, some specialize in a very specific area and others have occupational titles which do not readily identify them as practicing psychologists (e.g. personnel managers).

To obtain an approved qualification in industrial psychology takes about five years in most countries but such a qualification is not necessarily essential for practitioners. For example, in Britain it is only in the last few years that steps have been taken to recognize appropriate courses, and the majority of industrial psychologists have learned the subject on the job and not through formal training. We are not aware of any taught Ph.D. programs in industrial psychology. In Poland there is a common doctoral program for all branches of psychology, with specialization in the industrial or other applied areas occurring only in the subject of the doctoral dissertation. In 1942 official recognition was given to the title "Diplome Psychologue" in Germany associated with a prescribed course of study, a situation which persists in the German Democratic Republic and the German Federal Republic. Professional involvement in the psychology of work is not bound by any legal requirements and is, therefore, not restricted to legally qualified industrial psychologists. In nearly all countries the need and desire for some form of professional register have been expressed, but implementing such a proposal presents considerable difficulties. For example, official recognition of the title "psychologist" was achieved in Holland after some twenty years of debate but to control the activities undertaken by psychologists proved impossible.

Concern with professional problems arises from the multidimensional nature of the changes occurring in industrialized societies, whether at an advanced or early stage of development. The many factors in the environment that influence the role of the industrial psychologist and the psychology of work are exemplified by:

Legislation of all kinds

Economic growth (in Western Europe, particularly the effects of European Economic Community) leading to increased standards of living and associated expectations

Technological obsolescence and its effects on the psychological contract of employment
Changing attitudes on the part of workers, unions, managers and political leaders to participation, consultation and joint decision making
The phenomenon of the "guest worker" as an integral part of the labor force
The increase in mergers and multinational corporations
Most recently, the economic crisis.

These factors and others combine to produce an uncertain, turbulent environment (cf. Emery and Trist, 1965) for the industrial psychologist.

Developments in Eastern Europe

In Eastern Europe the pattern of development has been rather different. Here the second world war caused immense destruction. Poland, for instance, lost about one third of its citizens and about half its national property. In these countries, immediately after the war, radical social changes occurred of which the main result was the organization of the state on new, socialist bases. The process of establishment of new authorities ended only in the years 1948 and 1949. The social situation of these countries was further complicated by the migration of people as a result of frontier changes and by mass migrations from the country to the towns.

At this time, the war destruction as well as the strained international situation - the cold war - forced these countries to concentrate their efforts on building heavy industry, with simultaneous limitations in the development of consumer industries and agriculture. The lack of qualified and managing staff, as well as international tension, were the two basic factors causing an extreme centralization of economic management. During this period economic and cultural relations between the East and the West virtually did not exist.

The social and political situation of Eastern Europe also

affected the condition of psychology. In het years 1945-49 there was a rapid development of psychological institutions, mainly university chairs, based on pre-war traditions. The activity of psychologists was based exclusively on I. Pavlov's reflexology, thereby confining their interests to psycho-physiology.

Essential changes occurred in the countries of Eastern Europe in het late fifties. Life became more democratic. Management was decentralized. Bases for actual participation of working people in the management were created. More attention was paid to the increase of the standard of living of the population. Economic, cultural and scientific contacts with the West were established. This caused an immense interest in the achievements of psychology in the West, particularly those in the USA. Since then the number of students of psychology has increased each year by about 20%. The range of interests of psychologists also widened considerably. Reflexology, though still appreciated, lost its role as the theoretical basis for psychology. The number of East European publications and those translated from English, Russian and French increased rapidly.

The seventies in Eastern Europe are characterized by:

Accelerated economic growth

Intensification of the level of investments, e.g., in Poland it is estimated at over 30% of national income

Promotion of social programs of development, e.g., education, health, transport, computerization

Searching for more efficient models of economic management

Lack of manpower

Modernization of methods of production

Extension of the rights of working people and increase of the real influence of workers on management

Greater international cooperation within the group of East European countries, as well as with the West.

Development of Industrial Psychology as a Profession

Given the changing environments in which they now operate which compel industrial psychologists throughout Europe to reappraise their role and professional ethic, much of this review will be given to considering some of the professional problems and psychologists' present responses to them in more detail. It should be stressed, however, that in so doing, much of what we say is impressionistic and cannot be supported by the kind of evidence we expect in citing scientific results. In fact, the contrast between the scientific approach to which we adhere as a result of our professional training and the anecdotal, impressionistic approach we have had to adopt in discussing social and environmental changes is a paradox for those who claim to be "social scientists". Underlying much of the ensuing discussion, therefore, is an awareness of the need for psychology to incorporate and integrate, in its methods and procedures, a systematic evaluation of economic and social inputs.

Pressures towards professionalization of industrial psychology are occurring simultaneously with, and arising from, the diversification of the field, reflected in the literature in recent years. Not only is there a marked increase in social problems which provide greater opportunities for psychologists to make a professional contribution, but their help is also being sought on organizational problems about which they were unlikely to have been consulted in the past. For example, one of the authors was consulted as to where his firm should invest in the Third World in terms of the prevailing cultural norms and available skills. Although some psychologists have become frankly entrepreneurial in the kind of advice they seek to offer, many are inhibited by the education and training they received from engaging fully in these newer activities. This creates all kinds of tensions. Management is essentially interested in the solution of problems rather than in the disciplines studied by those to whom they turn for help and so does not always enlist the most competent advice. At the same time, if the industrial psychologist is not prepared to enter into what, for him, is unknown territory, he will find

that his role is curtailed and the possibility of his influencing employment policies greatly narrowed.

Another characteristic of the present decade is the changing philosophical and ideological climate which is critical of the traditional pattern of authority and control. This puts management in all kinds of institutions under attack and leads, in turn, to questions of allegiance on the part of professionals who work on management's behalf. For the psychologist this takes the form of questions about for whom he is actually working as, for example, in selection and appraisal procedures, organizational development and the like, reinforcing issues to which the student population is particularly sensitive.

This had led young psychologists to shy away from employment in industry because of a fear that they thereby become aligned with the establishment. The conflict of loyalties which may be experienced in the industrial setting should not be underestimated. In situations of inter-group conflict the psychologist has a strong emotional identification with the group he sees as less privileged while, at the same time, he is dependent for his own livelihood on the approval and the support of an employer. This conflict is only one example of the kind of "identity crisis" experienced by industrial psychologists and those who might enter the profession, which is reinforced by traditional academic programs at universities. Stress on the value of the scientific methods and the assumed impartiality of research workers is not sufficient to prepare students for work in situations which are characterized by competing interests in which each party tries to get the psychologist on their side.

Accompanying this differentiation in the field, a differentiation of roles has occurred. Perhaps the most clearly defined role has been that of the research worker, implicit in which is the concept of independence and absence of bias. However, this too has been challenged in recent years by the development of action research, requiring a totally new approach to problem definition and involvement of the research worker in any implementation of the findings.

Furthermore, there is a growing awareness that much academic research is done when access is available, rather than where investigation is most needed, calling into question the relevance of such research. There are many job titles for professionals which did not exist a few years ago. For example, organizational analyst, management training specialist, changeagent, etc. Furthermore, in some countries psychologists prefer to be known by titles that have no connotation of "psychologist". In other areas such as selection the name of the job has not altered but the content has changed. Instead of concentration on assessment per se there is now concern to give counseling and advice, putting the whole selection procedure in a wider context.

In Eastern Europe the dilemma of conflicting loyalties does not exist in the same way because of a different pattern of power and authority. Here management has less independence than in Western European enterprises, being under the control of the Party, of the staff representatives, as well as of the higher grades of management. The psychologist in industry, however, has another problem, especially in Poland. He usually works alone and has no clearly defined tasks. Often managers do not understand the psychologists's role and, therefore, cannot specify what they should do to utilize the results of research, although managers at different levels ask industrial psychologists for help in specific cases. This means the psychologist is faced with the problem of how to respond to managers' inquiries, and he may find himself on the margin of organizational activity. Or, if he wishes to avoid this situations, he initiates projects and is active in the social and even the political field. This requires leadership qualities and spending a lot of time participating in plant activities. Not every psychologist is willing to undertake such total involvement. Therefore, during the last few years, a number of psychologists have left their jobs in enterprises. Their place is being taken by new university graduates and by clinical psychologists.

However, some psychologists in Eastern Europe have obtained important and high authority posts in management. They take part in working

out the systems of staff policy on a nationwide scale as well as in special economic departments, and they train managers of large economic organizations. But they act on the borderline of psychology and management. The psychologist who seeks to make a contribution to policy and practice does so by entering a wider domain and not restricting his activities to those traditionally assigned to him.

The rapid changes in Europe are not only having consequences for psychologists but for all other professional and occupational groups. The boundaries of their professional territories are becoming indeterminate, leading inevitably to some disputed areas. As the speed of change shows no sign of slackening it is clear that relationships between all who lay claims to common areas of interest will have to be worked out in the not too distant future, especially between psychologists and sociologists.

A major factor bound up with all the foregoing problems is the growing gap between theory and practice and between teachers and practitioners. In the absence of a professional body which determines the requirements of its members, this gap is accentuated. The protection afforded by the academic ivory tower from the sphere of the world of work means that degree courses are not changing sufficiently fast to meet environmental conditions. This appears to be evident in all countries regardless of the present status of psychology as an academic discipline.

We have the impression that psychologists have been only partially successful in meeting the new and conflicting demands made upon them. Also that this is in itself an insufficiently discussed subject, almost a taboo in professional circles. There appear to be different ways in which psychologists have attempted to meet these problems, for example, by retreating into the academic environment and traditional experimental research, by adopting a humanistic rather than a scientific approach, or by identifying with their function as a change agent or whatever and not primarily with psychologists.

The present time may, therefore, be characterized as a period of transition in which there is an element of uncertainty about all aspects

of work and social life. This is leading to a search for new approaches and a great deal of self-questioning. Questions such as, "What contributions should psychologists be making", "What is the nature of the relationship between management and workers and professional bodies?" and "What image is being projected of the psychologist's task?" are some of the issues for which there are no clear cut answers and individual industrial psychologists have to work them out for themselves. These questions touch upon deep-seated emotions, such as fear of involvement in the dynamics of power and anxiety about changing values, producing a reluctance to discuss them publicly.

Developments in the Subject Areas of the Psychology of Work

Attention will now be given to a brief review of the developments in each of the main subject areas of industrial psychology, without any claim at comprehensive coverage.

Selection

In most countries selection was traditionally the major activity of industrial psychologists and, in some places, this continues to be true even today. A shortage of labor in some Eastern countries puts the emphasis on placement rather than selection. In the Soviet Union, selection is and has been only a small facet of the psychologist's job.

A number of changes in emphasis can be detected in both theory and practice of selection since the end of World War II. For example, in Holland and the Federal Republic of Germany, the clinical approach predominated up to the end of the 1950's, and then this gave way to a more methodological orientation focussing on questions of test construction, validation and criterion problems. However, such a statistical approach is not easy to apply in practice as the psychologist is usually working with small samples and lacks adequate tests and adequate information about jobs and criteria. Whereas it was believed that some measure of objectivity could be introduced by the use of psychological techniques, it is now recognized that all selection procedures entail subjective judgments.

At the same time questions have been asked about the position of the applicant in relation to selection procedures. In a number of countries, the view increasingly has been taken that the model of the selection process whereby applicants are judged suitable for a given job in terms of the best fit is detrimental to a philosophy of the dignity of man. The reasons for this stem from the implicit assumptions underlying selection procedures which place the applicant at a disadvantage relative to the prospective employer, putting the former in a situation analogous to a tool to be requisitioned from a store rather than treating him as an individual attempting to exercise free choice in selecting his sphere of employment. Debate of this kind, both in the mass media and in professional circles, has brought about changes in the code of ethics in a number of countries, e.g. Holland, Poland and Sweden, which give the applicant the right to prior knowledge of the results of psychological tests and, if he so wishes, to insist that these results not be reported to the employer. A proposed order in the Federal Republic of Germany will give applicants and employees the right to be informed of the results of medical and psychological examinations. In addition, there is now a committee in Holland to advise the Minister of Social Affairs on how to strengthen the rights of applicants. These changes can be viewed as showing a trend toward the "democratization" of selection, a trend most fully developed in Sweden. The employer, the union and the work-mates (both peers and subordinates) participate in the entire selection process - analyzing the job and writing the position specification, assessing the candidates and selecting one of them to be hired or promoted.

Another aspect of this problem is that the psychologist has to ask himself where his loyalties lie. Is his concern primarily to fill a vacancy on behalf of the employer, or to help the individual to make the best decision in terms of the opportunities available? Even where he endeavors to do his best for best of both parties, there may be an inherent incompatibility in his roles. Neither textbooks nor training courses customarily deal with issues of this kind.

From the point of view of the organization, recruitment and selection, particularly of potential "high-flyers," require more than a decision at a particular point in time. It represents entry to a career with the organization, leading to a lot of activities not considered in the original assessment. Inevitably, this leads to the psychologist developing an interest in career counseling, taking a longer timer perspective, and keeping up to date with organizational developments of all kinds. For the selection psychologist who operates on his own or from institutes specializing in selection services, these developments entail the risk of obsolescence. In France and elsewhere, it appears that there are psychologists whose limited contact with client organizations give them no opportunity to improve the effectiveness of the services they offer.

Regardless of whether the psychologist is dealing with selection or with counseling, there remains the need for continuous scrutiny of the content of jobs and improvement of selection instruments. But in some countries, e.g., France and Italy, selection has ceased to be a major academic interest. It is difficult to pool knowledge and resources in this area partly because the activity is undertaken in small and scattered units and partly because, in spite of any criticisms which they may make, clients have accepted prevailing standards of performance. As far as can be ascertained, it is likely that, in the future increased emphasis on counseling and development of individuals will supercede that selection and rejection of employees.

Training

There are wide differences in the extent to which industrial psychologists in Europe are directly involved in training. The country in which there is the greatest number of practitioners is the United Kingdom where the government provided money for research in industrial training even before the passing of the Industrial Training Act in 1964. This legislation led to increased job opportunities for psychologists as advisers and researchers for the industrial training boards set up under the Act with, however, more attention being given to operator training than to management training in the beginning. For many British

industrial psychologists, training, as well as selection, has been a major activity.

France also has legislation on training whereby 1% of the total wages bill has to be devoted to training employees, and this might well increase to 2% in the future. In the Federal Republic of Germany, the Federal Occupational Training Act of 1969 requires that all industrial trainers undertake special training and an examination; the psychological part of the program is important and is conducted by industrial psychologists. In Poland, legislation from 1965 and 1970 requires managers to attend training courses at least once in every five years. Statutory provisions on training are more limited in other countries, but training may be a major activity nevertheless. There is an agreement in the Italian metals industry requiring a minimum of 150 hours of training each year for each worker. Here, again, the emphasis is to be on operator training.

However, one may consider "training" as encompassing more than operator training and including activities which may be regarded as part of organizational psychology, e.g. managerial training, but this represents a different group of industrial psychologists. It is a sphere in which other practitioners are involved and appears to be a growth area throughout Europe.

Another way in which psychologists are becoming involved is through large projects in developing countries whereby not only hardware but total training of local personnel is offered. This is especially true for French-speaking psychologists.

Considering that there is so much psychological research dealing with human learning, training methods and the acquisition of skills and that people in all countries are likely to experience job changes at more than one stage of their careers, it is surprising that European industrial psychologists have not sought to be more active in this field.

Ergonomics

The term ergonomics is more familiar in Europe than human factors

or human engineering. Although some industrial psychologists would claim it is a branch of their subject, in many ways it is a multidisciplinary field in its own right involving physicians, engineers, and physiologists, as well as psychologists. This is another area in which there is considerable variation between countries in involvement by psychologists.

In the Soviet Union, German Democratic Republic and Czechoslovakia, ergonomic research is the main activity of psychologists. In the United Kingdom the subject is well established, to the extent that some universities offer separate degree courses in ergonomics and, of practicing ergonomists in this country roughly one-third were trained primarily as psychologists, demonstrating that this domain does not belong exclusively to our discipline. Elsewhere only a small number of psychologists are involved and they usually work in specialized institutes and at universities. This is the case in Holland, Sweden, Germany, Italy and France.

In general, ergonomists tend to make their major contribution to highly specific projects relating to industrial systems operators, process controllers, aerospace developments, air navigation, road research and health and safety work. The nature of these projects, and the close association with engineers and physicians, appears to have brought about its own communication network, marked by the establishment of separate professional bodies in most European countries. These associations, together with the regular international gatherings of ergonomists, raise the possibility that this may become a domain separated from the main body of industrial psychology. Ergonomists tend to have a scientific orientation to the problems of the work environment in contrast with the more humanistic approach frequently found among organizational psychologists. There is scope for collaboration between these approaches in, for example, the sphere of job design where, if either is followed to the exclusion of the other, only a partial solution is likely to result.

Organizational Psychology

The precise date of the emergence of organizational psychology is difficult to pinpoint, but it is generally agreed that it started to be a distinct subsection of psychology during the 1960's. As yet the involvement of psychologists in this field varies considerably in the different European countries. For instance, it is well established in Holland and Scandinavia and, more recently, in the United Kingdom, but in France and the South and East of Europe, application is still quite limited. As in the United States, the boundaries of this sphere of activity are by no means agreed, and it is one to which other disciplines make an important contribution. Insofar as it is possible to identify a focal interest which has led to this development, the concept of planned organizational change predominates. It marks the transition from a view of organizations evolving in response to external and internal changes to the idea that change can be introduced deliberately into organizations. This pro-active approach received strong reinforcement, on the one hand, from ideological considerations placing an enhanced value on the participation of employees and the conditions of work and, on the other, from a generalized desire to control the effects of technology as the main determinant of the nature of work.

In most countries, few psychologists were aware of the changing climate of opinion at the beginning of the sixties, tending to be preoccupied with their traditional roles of selection, test construction, research, etc. There was an increasing concern with questions of worker motivation, job satisfaction and the like, but these topics were approached initially by means of survey investigations and interviewing programs in a conventional research manner. Those who were active in an attempt to develop methods of organizational analysis and planned change were regarded as operating at the fringe of the profession. For example, in Holland there was a group of social psychologists trained by the "Sevens Faculty", working in this area during the sixties who were only allowed to become members of the professional psychological organization (the Netherlands Institute of Psychologists)

in 1968. At the same time some management consultants and trainees switched their attention from content to process. This was the era of sensitivity training and personal development programs in which non-psychologists took a leading part.

In Britain, many industrial psychologists became aware of the need to look beyond the individual and the group and study organizations as a whole as a result of the published work of the Tavistock Institute and of the research of sociologists such as Woodward (1965) and Burns and Stalker (1961). The concepts of socio-technical systems and action research, as developed by the Tavistock Institute, found a fruitful testing ground in Scandinavia where, as a result of collaboration between such researchers as Emery and Thorsrud, the now wellknown pioneering work on job design was undertaken. It would seem that the social climate in Sweden and Norway provided the right environment for experimental testing of autonomous work groups and other forms of worker participation in job design. Elsewhere in Europe, as already indicated, psychologists have been much less involved with such developments.

The late nineteen sixties were marked, throughout Western Europe, by strong ideological movements towards democratization. These found expression in strikes, sit-ins and other forms of protest, by workers and student groups. Among younger psychologists a strong humanistic stance developed and they sought to use their professional expertise to bring about improvement in the social order. A number of managers became aware, at this time, of the need for a new approach to work and work place relations and were prepared to allow social scientists to experiment. However, it became clear that there was much greater consensus about the ends to be attained than knowledge or agreement about how these ends could be reached. For example, psychologists found that to advocate openness and trust, on the basis of their knowledge of the dynamics of small groups, was inadequate in a situation of polarization of attitudes relating to both politics and power structures. Another example is that of the psychologist who is used to taking the role of mediator between conflicting parties but who lacks

knowledge of the legal and statutory procedures needed to be an effective arbitrator. An exception is Italy where psychologists are trained to have special competencies in industrial relations.

Organizational psychology also provides no protected role for the psychologist. In this sphere, he is not an expert whose advice can be sought and either accepted or rejected, but he has to be an active partner taking his full share in the implementation of his advice. This means not only that he is more emotionally involved with his clients but that the client system is much more complex than his training led him to believe. He is likely to be engaged with managers, supervisors, employees, employee representatives and unions and is required to operate in unexplored areas involving risk and uncertainty. Furthermore, when he is no longer in his ivory tower the psychologist finds himself exposed to political maneuvering and attempts to manipulate him in a manner which he has not anticipated. He is, therefore, forced to consider his own position, his values and his ideology, and cannot claim to work solely with scientific detachment.

Organization development is seen by some as a major part of organizational psychology, but it represents an approach which is quite distinct from the type of organizational psychology practiced by those with a job-or task-centered orientation. In other words, there are at least two distinct "cultures" among psychologists in the organizational fields which entail different levels of involvement in organizations. Those working within the task-centered framework are likely to experience less conflict about their professional roles than those who seek to engage with client systems on a power equalization basis, although psychologists in both groups will encounter conflicts.

Some professional dilemmas arise from and are enhanced by the newness of the field and the fact that there is still a lack of consensus as to what constitutes "good" practice in this area, with few acknowledging experts. What tends to happen is that one finds two or three departments in an organization claiming responsibility for this area of work, e.g. personnel, management services and organizational development. This raises the question whether organizational psychology

can or should have its own professional body outside the traditional subjects areas. For example, should psychologists, sociologists and others each have their own subsections specializing in the field, or is this a domain which requires a supra-professional body of its own? In our view this question is, as yet, unresolved but it poses issues of quality control and professionalism.

Quality of Working Life

Throughout Europe there is evidence of increasing interest in programs generally described under some such heading as "the quality of working life," not in the least by the governments of the countries concerned. France has a senior civil servant with specific responsibility for improving conditions of unskilled labor, and in the Federal Republic of Germany a lot of money is being given for research, and in the United Kingdom there is now a Work Research Unit set up by the Department of Employment. To some extent these developments represent an act of faith in the ability to solve some contemporary problems relating to work, but perhaps they also have a cosmetic function for the images of the governments concerned. In Italy, however, initiatives tend to have been taken by the unions rather than by government.

As far as we are aware, there appear to be two main approaches. The first tends to concentrate on the humanization of work in terms of participation and self-actualization; the second on the design of jobs from a human engineering standpoint, often with a heavy psychological emphasis.

The involvement of psychologists differs between countries but our impression is that, proportionately, fewer are engaged in work of this kind than might be expected.

Preservation of Human Resources

The preservation of human resources offers great potential to psychologists to make a contribution to the well being of employees at all levels. Under conditions of change people suffer more stress in trying to attain a regular career than in a stable environment. It is

increasingly apparent that many young people are unable to find jobs, older people are confronted with unemployment or early retirement, others seem to wish to withdraw from work altogether, while still others resist any job changes which require moving to another geographical location. All these problems entail some personal conflict and are frequently damaging to self-esteem.

When these issues arise in companies where psychologists are employed, guidance and counseling may well be sought from the latter. However, the industrial psychologist is usually not well-equipped by his training for this "clinical" role. Although industrial psychologists have been concerned with industrial rehabilitation, to a varying extent, assistance to "normal" individuals in "life crises" has not been seen as one of their major responsibilities. In some countries such problems tend to become the province of social workers.

Epilogue

In attempting to summarize the issues discussed in this review, it is apparent that they all illustrate an ongoing situation in Europe of differentiation versus integration. The latter is only just beginning to take place in some spheres, whereas the former has occurred on a wide front. It is evident that the process of integration is and will be both cumbersome and prolonged, and there is no blueprint available for its achievement.

In considering the possibility of integration it is necessary to bear in mind the different cultural and educational traditions in different parts of Europe. Our attention was drawn to the fact that these differences can sometimes have a valuable function in challenging any tendency towards a "one best way" approach to a common problem. However, for the further development of the field too much stress on differences can also be dysfunctional. We feel that a greater measure of integration is possible.

In the applied field the need for a problem-centered approach is increasingly apparent. Most problems can be dealt with in a variety of ways and can be examined with different perspectives. But, in the end,

it is the solution which is the paramount consideration. Therefore, the industrial psychologist cannot afford to be a narrow specialist. He needs to be well aware of the resources represented by other branches of psychology and other social sciences. For example, if he feels competent only in selection or training he will be confronted both by personal and organizational dilemmas when some unexpected problems arise, for instance a difficult relationship between a man and his boss.

An advantage of adopting a problem-oriented perspective is that it facilitates cooperation between different disciplines, because the search for solution makes it natural to see what each has to offer. This is in marked contrast to the situation in universities, where a true multidisciplinary approach is exceedingly difficult to achieve because there is no equivalent overriding problem requiring joint effort for solution. In the same way professional bodies representing different social science disciplines have no "raison d'etre" to cooperate. It is our belief that a prerequisite is the facing of certain problems which it is customary to deny or sweep aside, for example the issues of conflicting loyalties and competition and rivalry between different practitioners, to which reference has already been made.

For the industrial psychologist a major question is what role(s) he wants to have in an organization and society, and what contribution he hopes to make. This requires determining what psychology has to offer from its achievements in the past, as well as meeting the opportunities provided by present and future developments, bearing in mind that psychologists will be subject to a lot of role-sending from many quarters. In searching for his appropriate role in a multidisciplinary approach the psychologist starts with the advantage of having much to offer. If he has any doubts about this he has only to look at the way in which his concepts and methods have been utilized by other practitioners such as marketing specialists, organization consultants and operational researchers. The field of psychology as a whole provides a remarkable range of models, theories and sophisticated methods of research and data analysis for the examination of real life problems.

We are convinced that the strength of our methodological expertise will be needed quite as much in the future as it was in the past, provided that we do not lose sight of the relevance of the area of inquiry. In our view there is a need for as much psychological talent as possible to be devoted to the study of actual behavior. Up to now there has been a widespread tendency to attack problems at too abstract a level and on the basis of existing stereotypes. There are many reasons for this. Both the climate of opinion and the expectations of managers, on the one hand, and students, on the other, lead to a desire to produce "results" within a short time perspective. This often accompanies a belief in the superiority of a technological approach which puts too much emphasis on measurement and application rather than on observations in natural settings. For example, one of the authors had two students each with unique opportunities to present theses based on first-hand accounts of profound organizational changes. The students concerned were not comfortable at the thought of basing their dissertations on what they regarded as "mere case studies."

The development of the field is not something which can be accomplished by psychologists alone. They must borrow from other fields and will have to do so even more in the future. Organizational psychology provides a clear example where the "knowledge base" comes from sociology as much as from psychology with contributions also from other disciplines. And ergonomics is another field where psychology is but one of the contributing disciplines. However, there are also some gaps in current thinking among psychologists. For example, the concepts of power and conflict in relation to institutional procedures are not discussed in the psychological literature, although they get much attention from sociologists. Similarly, whereas there is a journal devoted to the sociology of leisure very few psychologists have undertaken studies in this area.

In addition to a multidisciplinary approach, a multiplicity of functions can be anticipated for industrial psychologists. They will not only be researchers or experimenters, but also helpers, counselors and interventionists in various situations. In pursuing this line of

thought one is compelled to ask to what extent is it meaningful to maintain the present separations of disciplines in the applied field? We wonder if we have identified a new profession of applied social science for those engaged in what is now called the psychology of work. Indeed, we have even heard the opinion that the future of industrial psychology lies outside traditional psychology, as it is represented in our present institutions. Dissatisfaction with the present state of affairs appears to be universal, although the opportunities and constraints differ between countries. Psychologists are not free agents. They operate in a complex environment which sets limits to their activities. Therefore, while in no way belittling the wider opportunities already described, it is important to remember the constraints imposed by the environment. These operate at two levels: First, in the immediate task situation, there is the effect of the psychologist's place in the organizational hierarchy, including to whom he is responsible for his work and his position relative to other specialists such as personnel managers. Second, at the societal level there is the impact of social policies, government legislation, the activities of pressure groups, influence of the mass media, and so on. Some examples are industrial training acts, acts on worker councils, and industrial participation, race relations, antidiscrimination acts, protection of applicants, disabled persons, etc. Inevitably there is interaction between these two levels which adds to the aforementioned complexity.

One should not underestimate the difficulties psychologists experience as individuals in their work situation. Although one is tempted to stress in a review the opportunities there are, one also runs the risk of presenting too rosily a picture. But the constraints in a working situation can sometimes be prohibitive for making a real contribution. This differs throughout Europe, but there are some countries, notably Italy, where these difficulties are very great.

Coming to terms with this complex environment is another aspect of the integration problem. It is one with which psychologists and their professional organizations are relatively unfamiliar and unpracticed

in handling. Furthermore, the issues involved cannot be dealt with on an individual basis but need to be managed through collective action.

Implicit in the professional image which psychologists have developed is a "gentlemanly" approach, entailing a measure of emotional detachment from the situation in which he is involved. As a result, lip service is often paid to the need for psychologists to get involved with policies and issues, without taking emotional consequences into account. A desire to be in but, nevertheless, above the conflict remains, and organized political action (where appropriate) is hardly even considered. Here again there are differences between countries, but the phenomenon of the industrial psychologist trying to come to terms with these constraints and environmental pressures in isolation, notwithstanding the existence of professional bodies, is a common one.

If we are right in this assumption, there is both the need for and the possibility of a stronger professional identity which transcends national boundaries. Reliance on conventional gatherings, such as large international congresses and informal exchange of opinions among psychologists is not enough. The argument in this paper has been that there must be discussion and integration of many approaches on a more fundamental level than has occurred hitherto. As a starting point it is suggested that discussion of the issues raised here should be intensified through the medium of professional journals, meetings and seminars and, where practical, through small study groups in particular locations. These should not be restricted to psychologists alone. Perhaps, too, there is a need for a European equivalent of journals like the Administrative Science Quarterly and the Academic of Management Journal which are not discipline-based but provide a forum concentrating on the discussion of societal and organizational problems as a whole.

References

- Baumgarten-Tramer, F. Chronologie des entwicklung der arbeitswissen-
schaft und der angewandten psychologie. *Arbeitswissenschaft*, 1971,
8/9, 165-182.
- Burns, T. and Stalker, G.M. *The management of innovation*. London: Tavi-
stock, 1961.
- Emery, F. and Trist, E.L. The causal texture of organizational environ-
ments. *Human Relations*, 1965, 18, 21-32.
- LePlat, J. La psychologie du travail. In Reuchlin, M. (Ed.) *Traite de
psychologie appliquee*. Paris: Presses Universitaires de France, 1971.
- Spaltro, E. *Storia e metodo della psicologia del lavoro*. Milano: Etas
Libri, 1974.
- Woodward, J. *Industrial organization: theory and practice*. London:
Oxford University Press, 1965.