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PRESIDENT'S MESSAGE

Beginning this year, the APA Central Office distributed to the Council Representatives, Board of Directors, members of other Boards, APA Committee Chairmen, Division Presidents and Newsletter Editors a newsletter which reports the highlights of activities as seen from Washington. This is a very helpful report and provides a perspective on the Psychological scene. Without trying to provide details from the many mimeographed pages forwarded, let me share a personal perception of this set of papers.

First of all, there is relatively little activity that has any apparent direct relation to industrial psychology. Let me mention briefly the two items that might suggest such a relationship.

1. The United Auto Workers is developing proposals for mental health insurance coverage. Also, the AFL-CIO Executive Council has been working up a statement tentatively entitled "The Role of the Labor Movement in Improving the Care and Treatment of Mental Illness."

2. A Conference, largely of clinical psychologists, was held on professional and social issues confronting psychology. Among their resolutions they indicated that they wanted "to expand the present group to include other groups and organizations interested in social and professional issues that confront Psychology, particularly with respect to the issue of the autonomy or independence of the Psychologist." Some possible other groups mentioned were "... Divisions... 14..., etc.." Thus, our Division was one of over fifty other groups which they would hope to involve. No, there was nothing mentioned about the efforts of Representative Gallagher to kill personality testing within government offices as an invasion of privacy, though your President wrote to the APA Central Office on this subject, April 13, 1965.

If the problems and the development of industrial psychology are not capturing the attention in Washington, what activities seem prominent? Here are some of the major items reported:

1. Considerable attention has been devoted for legislation on community health centers to provide for staffing on the basis of individual competence rather than identification with any particular profession.

2. The APA office has also expressed interest in space testifying on "The Correctional Rehabilitation Study Act of 1965."

3. APA has volunteered its assistance in helping the program to become operational in assisting "communities to attack the problem of poverty at the level of the young child."

4. Wherever health insurance is directed to mental health care, efforts are being made to provide for the services of psychologists, with special concern to protect the services of private practitioners.

5. Conferences have been held in four states regarding the training of clinical psychologists.

6. It is planned that the new APA headquarters building will be dedicated on May 29; the leasing of the new building "has gone remarkably well."

It is certainly clear from a review of these materials that clinical psychology is definitely capturing the attention of the APA Central Office. Its professional problems, especially those relating to the medical profession, are the center of attention.

But lest we feel much neglected and become paranoid, let me report that the APA Board of Professional Affairs, in response to a recommendation of your Executive Committee, appointed a Committee on the Practice of Industrial Psychology to devote attention to the professional problems of psychologists serving industry. This new Committee, just getting underway, is chaired by William F. Holmes and includes Albert Blankenship, Milton Blum, Douglas Bray, Jack W. Dunlap, Walter R. Mahler, William McGehee, Patricia Smith, and your president. All but one of these members is in Division 14.

We are pleased to see an APA Committee appointed to this subject. It is now preparing a list of the specific problems which impinge on the practice or effectiveness of the industrial psychologist. I feel sure this Committee would be glad to receive "grist for this mill" from you. We will obtain general professional attention and concern for our problems only as we devote attention to them ourselves.

BRENT BAXTER

OFFICIAL DIVISIONAL BUSINESS

SELECTED MINUTES OF SPRING (May 28-29, 1965)
EXECUTIVE COMMITTEE MEETING

1. Education and Training Committee: The Committee's report, "Guidelines for Doctoral Education in Industrial Psychology," was approved, and will soon be published in the American Psychologist.

   The Executive Committee discussed the report, "Post Doctoral Training of Industrial Psychologists." A summary report will be prepared, drawing conclusions and recommendations for university departments, people in industry, and the Division itself.

   The Executive Committee discussed the problem of psychologists employed in non-psychology departments (in business schools, etc.). Issues such as the eligibility of graduates of such programs for APA membership, the image of how such graduates see themselves, what happens to them after graduation, were discussed. The Executive Committee agreed that the E&T Committee would start an exploration of issues and problems in this area.

   It was unanimously voted that the Secretary to express to Paul Ross the appreciation of the Executive Committee in the efforts and products of the Education and Training Committee, and commendation for the outstanding contribution made by the report on post-doctoral training.

2. Scientific Affairs Committee: Pat Smith reported that 27 research proposals had been received: 2 are tied for first place. After considerable discussion, it was agreed that this year each of the 2 winners would be given a full award of $250 and that the Scientific Affairs Committee could grant additional honorable mentions without money. It was also agreed that next year the winner would receive an award of $500 and that 5 or fewer additional honorable mentions would be granted, each carrying a monetary award of $100.

   The Executive Committee discussed at some length the problem of obtaining grants for industrial psychological research and stipends and scholarships for students in the

field. After considering a number of alternatives, it was agreed that the first step should be to find out which organizations might provide financial support and in what ways. In this connection, members of the Executive Committee were asked to send to Pat Smith the names of agencies and foundations which might make grants to industrial psychology.

3. Special Interest Activities Committee: Bill Jaynes reported on the activities of the SIAC. The survey of new Division 14 members has been completed. Four activities are in progress: 1) a survey of degree-granting institutions (questionnaires will be developed cooperatively with the Education and Training Committee); 2) journal content analysis of Personnel Psychology (it was reported that Jim Naylor also has a student doing this for several journals); 3) an analysis of recent dissertation abstracts; and 4) an analysis of Division 14 programs. The SIAC recommended that open discussion sessions dealing with day to day problems would be a valuable addition to the APA program. This suggestion was referred to the Program Committee.

4. Fellowship Committee: Brent Baxter read to the Executive Committee correspondence between himself and Noble Kelley dealing with the relationship between ABEPP and Fellowship, making the point that the former recognizes competency in the field, whereas Fellowship recognizes professional contribution.

5. Professional Affairs: Fred Wickert pointed out that the Statement of Issues on Professional Affairs was published in TIP, but that the note requesting that those members who conduct surveys of Division members share their findings with the Division was not published (except as part of the summary of the Minutes of the Division).

   Wickert reported that the Professional Affairs Committee handled 7 ethics cases: 4 were completed; 3 are still in process.

   He also asked that the Minutes of the last meeting, which stated that, "The consensus of the Executive Committee was that such a (salary) survey is not needed now.," be corrected to show that the Executive Committee did want such a survey. It was pointed out that the National Science

Foundation collects salary information by function for industrial psychologists. The Professional Affairs Committee was requested to find out more about the possibility of getting such information from NSF.

6. Newsletter: Brent Baxter announced that John Boulger is the new Editor of TIP, upon Bob Perloff's resignation. The Executive Committee unanimously voted to express appreciation to Bob Perloff for serving as TIP Editor and directed the Secretary to write him a letter conveying this sense.

   The Committee discussed distribution of TIP to graduate students. It was agreed that a coupon or similar device would be published for use by department heads to send the Editor requests for a supply of copies for such distribution.

7. Secretary-Treasurer's Report: Phil Ash reported that the balance on hand as of May 28, 1965 in the Division account was $2,456.73. The balance on hand in the Cattell Award Fund was $5,314.89.

8. Program Committee: The Executive Committee accepted with thanks the (mailed) report of Jack Parrish, including the copy of the completed program. Ross Stagner announced that Jim Keenan has accepted the post of Program Chairman-Elect, and will serve as Program Chairman for 1965-6. It was agreed that as soon as the President-Elect is known, he would be requested to appoint a Program Chairman-Elect for the following year. Stagner also announced that there will be a meeting of all Program Chairmen who served for the last 5 years during the APA Convention in Chicago.

9. Organization and Structure of the APA: Brent Baxter brought to the attention of the Executive Committee the action of the Board of Directors of APA concerning the resolution passed in Los Angeles by Division 3 and the communication from Division 14. The Board referred both communications to the Policy and Planning Board. Baxter also reported that he had received a copy of a letter from Division 16, generally supportive of Division 14's position, urging that APA be strengthened centrally.

10. Conference on Professional and Social Issues: Brent Baxter reported that the Division had been invited to send

representatives to a Conference on Professional and Social Issues of Psychology on June 12-13, in Chicago. The basic issues which were considered in a previous meeting of this Conference concerned participation of psychologists in the Community Mental Health Program, reimbursability of psychologists under insurance programs, and issues concerning private practice. The Executive Committee voted that a representative of Division 14 attend the Conference as an observer. Fred Wickert, Chairman of the Professional Affairs Committee, agreed to serve in this role.

11. Selection Testing and the Civil Rights Act: Phil Ash read to the meeting a response from Hubert H. Humphrey in reply to an inquiry concerning interpretation of Title VII, Paragraph 703h, of the Civil Rights Act, as follows:

> "This proviso means that companies and employers generally have the right to give tests for professional qualifications. However, this does not mean that such tests will not occasionally be the cause of complaints; for instance, it might be argued that they were administered unfairly or were irrelevant to the actual job requirements. Thus, each complaint of this nature will have to be treated on its individual merits by the Equal Employment Opportunity Commission."

12. The Professional vs. the Ph.D. Degree in Psychology: The Executive Committee discussed the reported proposal of Dr. Humphreys at the University of Illinois that a professional degree be created. This degree would apply, it is understood, to all disciplines in which the university department concerned felt it was appropriate. The present impetus, however, comes from the desire to create such a degree for clinical psychology. It was pointed out that the report, "Guidelines for Graduate Training in Psychology," deals to some extent with this issue, taking a position in favor of broad basic training for psychology and stating that research should not be limited to the doctoral dissertation. It was the consensus of the Committee that the issues involved in the professional degree have not yet matured in the field of industrial psychology, that it is not clear what such a degree would mean in practice, but that there is some uneasiness concerning the issue. Ross Stagner agreed to introduce a position paper for industrial psychology relating to this issue at the September business meeting of the Division.

13. Congressional Investigation of Testing: Brent Baxter reported that Representative Gallagher has been challenging the State Department's use of psychological tests, particularly personality tests. He said that the attack was not limited to problems that concerned industrial psychology. He reported that he wrote to Art Brayfield expressing the concern of the Division over this development, but that he has not heard from him since March. As a result of Representative Gallagher's protests, it was reported that the State Department agreed to discontinue the use of the Minnesota Multiphasic Personality Inventory.

14. APA Committee on the Practice of Industrial Psychology: This Committee, appointed by the Board of Professional Affairs to look into the problems of industrial psychology, is chaired by Bill Holmes. The Committee held its first meeting on April 8. It was decided not to attempt to write a definition for industrial psychology, construct any code of ethics, police the practice of psychology, or struggle with public relations issues. The Committee decided to focus its main attention on effective programs and problems of psychologists who work within the industrial setting. To this end, the Committee is collecting group case studies concerned with problems of practice. To better reflect the nature of the problem, consideration is being given to change the name of the Committee to the, "Committee on the Practice of Psychology in Industry." It was agreed that the Professional Affairs Committee would send materials and ideas bearing on these problems to Bill Holmes.

15. Evaluation of Industrial Psychology Programs: Stan Seashore suggested that consideration might be given to seeking to interest an appropriate governmental agency in industrial psychology with the view to obtaining financial support and a channel for communication. In this connection, he suggested that some consideration might be given to a program of evaluation of industrial psychology programs similar to the existing APA program for evaluating clinical and counselling psychology programs. Brent Baxter requested that the problem be defined and elaborated for consideration by the Executive Committee.

16. Next Meeting: The meeting of the Outgoing Executive Committee is scheduled for Friday, September 3, 5 p.m. to 7 p.m., at the Palmer House. The general business meeting

is scheduled for Sunday, September 5, 3 to 5 p.m. The Incoming Executive Committee meeting is scheduled for Monday, September 6, 10 a.m. to noon.

The Thirteenth Annual Workshop in Industrial Psychology

The Division 14 Workshop will be held on Thursday, September 2, 1965, at the University Club in Chicago, at 76 East Monroe Street. The program content is,

Section I - "Organizational Change" (Open Session) - Floyd C. Mann
Warren G. Bennis

Section II - "Criterion Measurement" - Melvin R. Marks

Section III - "Clinical Techniques in Industry" - Edwin C. Nervis

Section IV - "Personnel Research Applications of Computers" - Wallace Knetz

Section V - "Techniques in Industrial Research" - Edwin R. Henry and Paul C. Baker

The charge is $30 for APA members and $40 for non-APA members. Applications and checks should be sent to R. D. Hedberg, Associate Director of Agencies Research, The Prudential Insurance Company of America, Newark, New Jersey 07101. Applications should be mailed by August 13, and the check should be made payable to Division 14--American Psychological Association. In your application indicate which one of the above five sections you wish to attend. If Sections requested are filled, the fee will be refunded. Refunds cannot be made, however, for registrations cancelled by participants later than August 26, 1965.

ANNOUNCEMENTS OF INTEREST

GRANTS, FELLOWSHIPS, AND AWARDS

The Humble Oil & Refining Company in cooperation with the University of Houston has established a Traineeship in Industrial Psychology. The purpose of the traineeship is to further the training and development of a University of Houston graduate student in the field of industrial psychology, and as currently established the trainee will work 20 hours per week in the Houston Headquarters of the Humble Company under the supervision of Mr. C. Paul Sparks, Coordinator of Personnel Research. It is planned that the trainee will work on personnel research in the fields of selection, placement, performance evaluation, motivation and organization behavior. Assignments will be made to projects which will advance the trainee's interests and research experience. Trainees under this program will be rotated annually. The first trainee assumed his duties on March 15 so it is too early to evaluate the effectiveness of the program. However, the program is set-up in such a way that the trainee should receive extremely valuable, supervised practical experience in a complex industrial setting.

* * * *

The Research Center for Industrial Behavior of New York University has received a grant from the Ford Foundation to study the impact of personnel selection procedures on minority groups and on the culturally deprived. Organizations that hire an appreciable number of Negroes and Whites on the same jobs are invited to participate in the study. Write: Richard S. Barrett, Research Associate Professor of Psychology, New York University, New York 3, New York.

OTHER ANNOUNCEMENTS

The Psychological Corporation has recently published a new form of the Wesman Personnel Classification Test, Form C, and also a 1965 edition of the manual for this test. The manual points out that Form C is equivalent to Forms A and B, with respect to measurement of verbal and numerical functions, but is about four points more difficult on the average than Forms A and B. The revised manual presents data from the

testing of many new industrial and other groups as well as normative data from the previous manual.

* * * *

A recently published book, Legacy of Neglect is, perhaps, of interest to members of Division 14, as well as to members of that other APA. The book is a publication of "a comprehensive report on Industrial Mental Health" completed by ten Harvard Business School students as a course requirement. The January 9, 1965, issue of Business Week had an article about the book and several industrial psychiatrists have commented favorably about the book. An interesting bit of information: the Business Week article quoted the authors as saying that there are only 16 full time psychiatrists in industry and two of these are employed by Du Pont who, incidentally, hired their first psychiatrist under the subterfuge to management that he was a general practitioner. The book was published "as an exercise in entrepreneurship" by the authors and is available for $13.50 at the following address:

Industrial Mental Health Associates
P. O. Box 1364
Fort Worth, Texas

* * * *

The Personnel Research and Development Corporation of Cleveland, Ohio, announces the opening of a branch office offering complete psychological services at 40 East 54th Street, New York City, Pending the appointment of a resident manager, the New York office will be staffed by Erwin K. Taylor, Edwin C. Nevis, and Stanley I. Rubin on a rotating basis.

* * * *

Walt Mahler has developed a Coaching Practices Survey. This survey identifies nine factors: responsibilities and goals, delegation, knowledge of performance, assistance as needed, motivation, working relationships, benefiting from experience, group activities, and future responsibilities. The factors are not independent and are intended to stimulate concern and action by line managers. Mahler Associates, Inc., is willing to make the instrument available to psychologists for research purposes on an actual cost basis. If interested write to:

Walter R. Mahler
Mahler Associates, Inc.
P. O. Box 61
Wyckoff, New Jersey 07481

* * * *

W. R. G. Bender has several items, some of which have not been published elsewhere, which may be obtained from him on request. These are:

1. "Dynamics of Reaching Management." Proceedings of the Eighth Annual Meeting Industrial Relations Research Association, 1955. 5p. - Reprint

   - Communication Between Management Personnel and Those Responsible for Conducting Research in the Behavioral Sciences.

2. "Some of the Factors Found to Influence Research Effectiveness." 1957, 11p. + charts. - Mimeo

   - Presentation to Directors of Research.

3. . . .And Loveless, H. E. "Validation Studies Involving Successive Classes of Trainee Stenographers." Personnel Psychology, 11:4, 1958 (Winter), 491-508. - Reprint

   - Summary of Research, 1951-1955.

4. "The Scientist as a Person." Wilmington: E. I. Du Pont de Nemours & Co., c 1958, 61p. - Multilith

   - Report of Study of Technically-Trained College Graduates Conducting Research in the Physical Sciences in the Company.

5. "Studies in Employee Thinking and Feeling." Wilmington: E. I. Du Pont de Nemours & Co., c 1959, 45p. - Multilith

   - Summary of Ten Years Company Experience in Conducting Employee Surveys.

6. "No Room at the Top--The Problem of the 'Average' Executive." Management Review (AMA), 48:7, 1959 (July) 9-14. - Reprint

   - Discussion of Job Satisfaction.

7. "What are the New Frontiers in Research for Personnel Administration?" Personnel Admin., 25:4, 1962 (July-Aug), 64-66. - Reprint

- Three Topics Considered Important for Future Research

8. "Psychological Testing in Industry." Personnel Journal, 43:4, 1964 (April), 203-204 & 226. - Reprint

   - Places Method in Perspective in Personnel Evaluation.

9. Bender, W. R. G.; Bowers, R. W. and Loveless, H. E. "Psychological Testing." Wilmington:E.I.Du Pont de Nemours & Co. c 1964, 24p. - Multilith

10. Bender, W. R. G.; Bowers, R. W. and Loveless, H. E. "Personnel Research in Du Pont. 1964. 5p. foldover - Multilith

Requests should be sent to:

Dr. W. R. G. Bender
Personnel Research Section
Employee Relations Department
E. I. Du Pont de Nemours & Company
Wilmington, Delaware

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In cooperation with Dr. Abraham S. Luchins, Craig Colony Hospital and Samuel M. Seltzer are planning to mimeograph a new edition of the manual "An Examination for Flexibility--Rigidity of Behavior." The 1950 revision of Dr. Luchins' earlier collection of various Einstellung tests has been out of print since 1954. The manual will be available for a nominal charge to cover expenses of supplies and postage. To get an idea of the number of copies which might be required, Mr. Seltzer would appreciate receiving letters expressing interest. His address is:

Sameul M. Seltzer
Chief Psychologist
Craig Colony and Hospital
Sonyea, New York 14556

* * * *

Howard Lockwood has returned to the Lockheed Aircraft Corporation after having been on loan to the Plans for Progress Office, the President's Committee on Equal Employment Opportunities. Howard's new title at Lockheed is Corporate Manpower and Management Development Specialist.

NEWS FROM ACADEMIA

The Psychologist and the Business School

Bernard M. Bass
Graduate School of Business
University of Pittsburgh

There have been parallel and mutually supporting trends among psychologists and schools of business and industrial administration. The schools have been shifting away from vocational education preparing undergraduates for their entry jobs in accounting, production, personnel, or marketing towards analytic teaching and research conceptualizing business problems in psychological, mathematical or economic terms so that the methods and principles of those sciences (often involving a novel integration of all three) can be brought to bear on the solution to the problems. Business school students now are more likely to be pursuing graduate degrees, often having completed undergraduate programs in engineering or the liberal arts.

Paralleling the change in business schools has been the movement of many psychologists from liberal arts departments into the schools and a broadening of interests by industrial psychologists. Some psychologists have moved over full-time. Others have joint appointments or participate in business school teaching and research only to a minor degree. They have expanded from primary concern for selection and training of the individual worker and the design of his workplace to interest in the interacting effects of persons, positions and the organization as a whole. (1,2)

Some crudely assembled facts about these psychologists come from an inadequate 1963 survey of 45 respondents at 25 universities representing 16 business schools and 12 psychology departments.

1. At least 172 psychologists (generally APA members) are located in business schools or have fairly substantial associations with business students and business schools.

2. They are likely to be almost as much identified with social as with industrial psychology. A few are primarily clinical, education or general-experimental in association.

3. Their teaching is devoted mainly to research methodology, organization theory, group dynamics and leadership, understanding self and others, psychological tests and measurements, and general psychology. There is a minor amount of involvement in more specific work like engineering psychology, consumer psychology, personnel management, and labor relations. Close alliance with sociology is seen professionally and educationally.

4. They tend to feel they are better off than their colleagues in liberal arts departments of psychology in their teaching assignments, assistance, travel support, and salary. They feel disadvantaged in access to psychology graduate students, to research opportunities, prestige, and intellectual stimulation.

Further descriptive information can be found in an article by Jack Miner (3) or at scheduled informal meetings of a Psychologist-Business School group at the annual APA conventions.

There has been a revolution of sorts at some but not necessarily all business schools in the United States, thanks to the pioneering activities during the 1950's at such schools as M.I.T., Carnegie Tech, and Stanford, and to critical Ford and Carnegie Foundation-sponsored reports (4,5) in the late 1950's about the unscholarly, yet unworldly state of affairs in most business schools. The schools claimed to be turning out business leaders but in fact were producing accounting and personnel assistants. The schools claimed to be doing business research; in fact, they were primarily commenting on then current business practices. Today there are wide variations in such schools ranging from unchanged undergraduate schools of yesteryear to graduate schools whose foundations now lie in economics, mathematics, psychology and related sciences. A recent Fortune article (6) describes the current scene.

The student with analytic methods (linear programming, game theory, statistical decision theory, etc.) with comparable work in micro- and macroeconomic theory and in such areas of psychology as perception, problemsolving, motivation and learning as well as in more applied psychological fields like advertising and consumer behavior finds a traditional marketing course to be a statement of platitudes and policies. Likewise, there is little point in the traditional personnel management course (and a series of such courses is clearly out of the question). The current personnel policies and practices of a

given corporation are better taught by that corporation when the student joins it. Applicable to a wide variety of management functions, operations research with some attention to psychological, mathematical and economic aspects of decision-making and control makes more sense than an antiquated production management course, a listing of the "principles" of production--hortatory admonitions of doubtful generality or validity.

Business research follows the same trend. Rather than after-the-fact comments about how General Motors invests its money in contrast to Chrysler and Ford, attention is turning to the behavior of budget-makers as a function of psychological variables like differential reinforcements and levels of aspiration, economic variables like price elasticity and mathematical variables derived from game matrices. Interdisciplinary research on bargaining behavior, exemplified by Fourraker (an economist) and Siegel (a psychologist) or on computerized problem-solving exemplified by Simon and his co-workers from mathematics and the social sciences is becoming commonplace in business schools.

Like his colleagues in mathematics and economics, the psychologist can plan a fundamental (rather than an auxiliary role) in both research and teaching in business schools whether the function of inquiry is marketing, production, R & D, personnel, even finance. (One of our students recently did a psychological experiment replicating a computer simulation of bank loan officers reacting to Federal Reserve pronouncements.)

The kinds of research problems to which he can address himself are as diverse as the activities of the business firm itself. (7)

What are the implications for the training of future Ph.D.'s with interest in psychology and business? There are two routes possible.

1. If the student has pretentions of being more than a research assistant to the personnel manager and if he would start the broadening process before he leaves the campus, the student working on his Ph.D. in the traditional psychology department would do well to spend a considerable amount of his graduate time in the newer type of business school. At Carnegie Tech and now at the University of Tennessee, joint

programs between Psychology and the Business School have been established in Organization Psychology to provide formal opportunities for the broadening process. Hopefully, something similar will develop at the University of Pittsburgh. The clinical student bent on an industrial career can also profit from some graduate work in the realities of business which constrain clinical ideals.

2. A student now can opt for a business school degree in the behavioral sciences where he gets more business and less psychology. This program may make more sense for the student who is preparing himself for an academic or scholarly career in a business school, particularly one which is changing more slowly or has heavy undergraduate commitments.

A distinct gain may accrue to the profession as a whole of this movement of psychologists into business schools. Such psychologists may be able to generate the kinds of research on human problems suggested by Sanford, (8) research which is less likely to be "fragmented, overspecialized, method centered and dull." The stimuli for their research are more likely to be significant industrial issues rather than trivial questions raised by their professional colleagues. They are more likely to engage in research of discovery rather than research of confirmation. They are more likely to affect and be affected by economists and mathematicians and to discuss and disseminate their findings among the latter professionals as well as among present and future business managers thereby diminishing the lag in time between social science discoveries and industrial applications as well as the lag between the identification of lively industrial problems and social science research on such problems.

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4. Gordon, R. A. & Howell, J. E. Higher education for business. New York: Columbia University Press, 1959.
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6. Sheehan, R. New report card on the business schools. Fortune, 1961, 70(6), 148-150, 206, 211.
7. See Dunnette, M. & Bass, B. M. Behavioral scientists and personnel management. Industr. Rel., 1963, 2(3), 115-130 or 2(above), pp. 18-19.
8. Sanford, N. Will psychologists study human problems? Amer. Psychol., 1965, 20, 192-202.

Erratum

In the News from Academia Section of TIP, Volume 2, Number 2, page 26, the first sentence of the first article should read:

> Programs leading to the Master's or Doctor of Philosophy degree in Organizational Psychology are now offered jointly by the Department of Psychology, College of Liberal Arts, and the Department of Industrial and Personnel Management, College of Business Administration, at the University of Tennessee.

The editors regret the earlier omission of "Department of Psychology and College of Liberal Arts" and are pleased to correct the error.

LETTER FROM GREAT BRITAIN

Prominent among the new words for the next Oxford Dictionary, to be listed between The Beatles and Cuppa, is the term "brain-drain." These nefarious words describing the process of emmigration of scientists and citizens from Great Britain, embrace much more than the departure of George Washington's grand-father across the Atlantic or Dr. Livingston to Africa to await in good time (you may presume) the arrival of Stanley.

The British public, like lemmings, have always been rushing down to the sea in large numbers. Their flight has become conspicuous in the past decade while this "tiny little island" has been struggling to retain her standing in world commerce. Physicians, engineers, professors, and even psychologists are among the intellectual elite striking out for greener pastures. Class rigidity and snobbery, unrealistic idealism among university administrators, strong conservatism in both government and business have all contributed to the exodus of talent at an accelerating and alarming rate. Among the more educated it is usually the new Ph.D., limited in numbers, who is heading for the distant shores, either to the U.S.A., Australia, or other Commonwealth countries where the British accent is preferred. Canada tends to offer the best attraction to the emmigrants who aspire for the economic opportunities of the U.S.A., but prefer a familiar way of life. Whatever feelings there are of disloyalty to the mother country are quickly banished in the newer environment of relative luxury.

The demand for scientists in America being what it is, personnel recruiters have found Great Britain to be great territory for exploitation. Headhunters have been known to deplete an entire physical science department in a university in one fell swoop. Laboratory assistants, and other paraphernalia, are packed and shipped across the Atlantic. (Psychology Departments to date have escaped this fate.)

The previous conservative government, lacking even the most elementary wisdom of insight, ascribed this brain drain to the "deficiencies of the American Educational system which cannot train a suitable number of scientists to satisfy its needs." This statement might be considered plausible in the absence of facts. The raw data show that the increment to the American scene by British scientists is, at best, in the order of one or two percent. A couple of midwestern universities contribute as

much to the Ph.D. scientist population as all the brains drained over the U.S.A.

One of the most recent 'victims' to be attracted to America is a psychologist of outstanding caliber named Ted Crossman. He has packed in his laboratory at Oxford University, which had been cleverly disguised as an attic in an old Victorian mansion. He took up the position of Professor of Industrial Engineering at Stanford University. According to the newspaper which reported his deffection, Dr. Crossman, will be receiving a salary about two-and-a-half times greater, and research grants that are about ten times larger, than what he was able to acquire in Great Britain. In addition the usual amenities that accompany such position in American Universities (like secretaries and graduate students assistants) will be available to him. The research team at Oxford University was engaged in man-machine system analysis and a number of the people involved are expected to accompany the move.

Dr. Crossman stated to a newspaper interviewer that "the University appeared to be against taking an interest in applied problems, especially in psychology." I want to work in the American Research climate which does not exist in this country for this kind of work." These remarks must be considered in the historical context of Oxford University tradition, which did not fully accept psychology into the academic fold until 1947.

A change in government philosophy, a radical shift in the attitudes of business and industry toward the utility of research, and higher salaries for University staff are just a few of the climatic changes that this country needs to plug up the brain drain. In the meantime, keep an eye on your employment contract. You might be replaced by a "Bloke."

Gerald Randell and
Larry Skurnik

CONFERENCE AND MEETING NOTES

Several papers in industrial psychology were presented at the 1965 Eastern Psychological Association meeting:

John E. Hay, Penn State University, reported on "The Relationship of Certain Personality Variables, Job Level and Job Performance to Self-Ideal Congruence Among Engineering Managers." Managers were asked to make Q-sorts of ideal and actual self-characteristics on Hemphill's 10 basic dimensions of management jobs, as well as completing the Fleishman Leadership Opinion Questionnaire, 16 PF Questionnaire, Myers-Briggs Type Indicator, and Gordon Survey of Interpersonal Values. Ratings by supervisory managers on 19 key behaviors provided the criterion. Self-ideal congruence was significantly related to job performance, introversion, and intellectuality, but not to job level. Job performance was related positively to intuitive orientation, perceptive orientation, intellectuality, and expedience, and negatively related to conformity.

Mark G. Pfeiffer and Arthur I. Siegel, Applied Psychological Services, reported on "Factorial Congruence in Criterion Development," Paired comparison judgments of 18 task descriptions were obtained from aviation electronics technicians and from their supervisors. Factor analysis of technician judgments found four basic dimensions: electro-comprehension, equipment operation and inspection, electro-repair, and electro-safety. These were congruent with the dimensions extracted from supervisory judgments.

"Photograph Interpreter Performance as a Function of Viewing Time, Image Characteristics, and the World-Rest Cycle," was presented by Kenneth G. Cook, Albert A. Galipeau, and Leslie O. Peterson of Applied Psychology Corporation. Several levels of image quality in photographic scale, resolution, and contrast were compared. Another study compared one and two minute viewing times and three work-rest cycles. Pacing rate and image characteristics affected the quantity of items identified but not correctness of identification. Work-rest cycles did not affect performance.

"The Cartoon Reaction Scale with Special Reference to Driving Behavior," by Theodore Kole and Harold L. Henderson, Drivers Safety Service, Inc., reported the development and validation of a disguised personality test using samples of problem and non-problem drivers. It was found that, in the

validation samples, correct "predictions" could have been made for 71 per cent of the problem and 69 per cent of the non-problem drivers. Highly significant mean score differences were found for the cross-validation samples.

A second paper from Drivers Safety Service, Inc. was "A Factor Analytic Study of Personality and Attitude Characteristics of State Motor Vehicle Inspectors" by Harold L. Henderson, Robert Plutchik, and Theodore Kole.

EPA Symposium

"The Young Business Manager" was the subject of a symposium at the recent EPA meetings in Atlantic City. The symposium chairman was Dr. Douglas W. Bray, American Telephone and Telegraph Company. Participants included Dr. Donald Grant (A.T.&T. Co.), Dr. David Berlew (M.I.T.), Dr. Joseph Rychlak (St. Louis University), and Dr. Walter Katkovsky (Fordham University). The panel presented a variety of early findings from the Management Progress Study.

The Management Progress Study, initiated by the Bell System in 1956, is a longitudinal study of the businessman starting from his induction into business in his early 20's. It is designed to be a contribution to basic knowledge of adult human development as well as of special significance to the selection and development of business managers.

The four papers in this Symposium represent analyses of quite different facets of the rich data collected during the first 8 years of the Study. Dr. Grant's study indicates that assessment center staff judgments yield a number of clearly discriminable factors and that these factors represent characteristics of young men substantially predictive of later success.

Dr. Berlew's paper turns to the "nurture" side and clarifies the role of early career opportunities in progress in the organization. Next steps in the research will examine the probable interactive effects between the potential a man brings to his career and the stimulation he finds there.

Dr. Rychlak's study focuses on the themes (perhaps "values" would be an equally good work) which underlie these "lives in

progress" and examines their variation over the early years of adulthood. Dr. Katkovksy's report presents the changes and stabilities in other personality characteristics over the 8 year period.

These early findings of the Management Progress Study show clearly that human development is far from complete at the time of college graduation. Mental growth continues and values and motivation change, at least for many. These changes are, no doubt, a complex product of pre-existing abilities and motives and later life experiences. The untangling of these processes is a major part of the unfinished work of the study.

Any newsletter readers desiring copies of the papers presented at the symposium should write Dr. D. W. Bray, Director of Personnel Research, A.T.&T. Co., 195 Broadway, New York 10007.

Donald L. Grant

Research at the U. S. Army Infantry Human Resources Research Unit
(The symposium at the January 25, 1965 Georgia Psychological Association)

Each of the participants in this symposium described one area of research in which the infantry research unit is working. The program of research is orientated toward increase in organizational effectiveness; and although the work has been based primarily on the military systems, the various participants feel that there is a great deal of similarity in terms of organizational variables with most other large systems that are characterized by heirarchal power levels with control of subordinate levels being vested in higher levels.

Joseph A. Olmstead described project High Lead which is an effort to intergrate, systematize, and apply relevant existing knowledge from the social sciences in order to provide a better understanding of a somewhat broad organizational role, the high level military commander. The end product of this research will be a book containing an analysis of high level

leadership and a general framework of principles and theory for use in fundamental instruction at the United States Army Command and General Staff College. The framework of this book will be based on the concept of leadership defined as the process of influencing the actions of individuals and organizations in order to obtain desired results. Analysis of the literature regarding the leadership role of the senior commander indicates two somewhat related but different major areas of endeavor in leading his organization: one dealing with the organization as a whole which concerns integrating and leading and directing a multi-unit, heirarchal organization as a unit. The second involves leading and directing subordinates with whom the leader has direct contact.

Clay E. George described experiments regarding determinants of effective performance at the small group level with particular respect to communications and training of work groups. Essentially, group training design should follow general analysis of work group structures, operational tasks of work groups, and the interaction between the two. He concludes that it is possible to train a work group in such a way that undesirable attitudes are established toward teamwork; attitudes that detract from the efficiency of the group to a serious degree over a period of time. The series of five large scale experiments and a number of pilot studies support the importance of considering group training design variables.

Ronald L. Brown described the research program on communication via cutaneous information processing. He reports on two feasibility studies which indicate that a tactual communication system would probably be an effective supplement to existing means of conveying information in a battle field setting. Further, that certain environmental variables such as ambient noise level will likely have little effect on the cutaneous "listener." However, situations requiring multimodality discriminations in a brief period of time and which preclude alternation of attention will necessitate careful engineering of the curtaneous language.

T. O. Jacobs describes the program of research regarding leadership at the small unit level. As a result of being conducted within the military setting, some emphasis is placed on the appointed leader versus the emergent leader role requirements. Jacobs suggests care in generalizing the findings based on studies of emergent leadership to the appointive leadership situation and that while this is characteristic of the

military it also frequently exists in industry. This underscores the need for additional research dealing with the appointed leadership situation.

Editorially speaking, while this symposium discussed research conducted in the military setting, the virtually denied similarity between the military and the non-military setting seemed obvious. Certainly the problems of leadership, whether at the small group level or at the organizational level, exist; the problem of training and work group performance exist; and the general concept of organization effectiveness is identical in the abstract at least as for groups as divergent as a military combat team and a church related liberal arts college. Specific factors such as type of communication processes may not be problems which the military shares with other goal-oriented organizations, although this seems to be a minor difference in the overall scheme.

Erich P. Prien

The winter meeting of the North Carolina Psychological Association focused on the problem of state legislation for psychologists and psychological service. The interest in the legislation on the part of psychologists in North Carolina is obvious to the extent that a second state-wide meeting was scheduled a month following the regular meeting. The result is that a final bill has been prepared and is in the legislative process. It is not likely that traveling industrial consultant will find himself unduly restricted in North Carolina, providing he meets minimal professional standards. Conventional provisions are made for recognizing certification and licensing obtained in other states and considerable caution has been exercised to avoid unjustly jeopordizing individuals who have obtained competence in uncoventional ways. One unique feature of the bill is the elimination of an examination. Licensing would be based on the documented credentials presented by the candidate.

Erich P. Prien

Notes on the Southeastern Psychological Convention
Atlanta, April 1-3

Of interest to the TIP readers was a symposium entitled, "Current Trends in Industrial Psychology." In this symposium Richard Husband reviewed the status and some recent work in motivation and morale. Ronald Fry reviewed conflict resolution, and Dr. Passey presented some of the problems involved in space travel. Of some considerable interest was an address by Howard Miller on current trends in management development. Dr. Miller presents critical appraisal of some of the philosophy underlying this "psychological service." While some of our procedures today appear to have an effect, such as in sensitivity training, the questions raised as to the nature of this effect and the direction of the impact, whether it is beneficial or possibly detrimental Miller is particularly disturbed with the cults which are perhaps more evident in the past but which have today gained some status in respectability, but nonetheless are based primarily on face value rather than on empirical data. There is little attention to the determination of training needs once the tendency is not to evaluate, but to support continuity of a particular style of psychological service on faith alone.

An experimental session was provided for which papers were distributed but not read oral. Authors were available for discussion. One paper by this reporter described a factor analysis of 38 organization variables. Three factors were defined, namely; Organization Maturity, Organization Vitality, and Organization Efficiency. Unfortunately, the anticipated discussions failed to materialize.

Over all this convention had much to offer both in the papers and the addresses and in the concomitant discussion that one can find at any convention if he looks for it.

Erich P. Prien

RESEARCH NOTES

Critical Summary of Criterion Research Literature

A critical summary of the research literature dealing with the "criterion problem" has been completed, covering the significant research appearing in the bibliography previously announced in this journal. The summary of the review identifies several aspects of the criterion problem which should receive emphasis in research in the coming years. Essentially the authors conclusions are similar to those being generally emphasized, namely that there has been little progress in research in the past decades and that the basic problems are yet to be defined.

The review of the literature is organized about the principle characteristics of performance measurement and evaluation. The principal questions proposed are as follows:

1. Is job performance reliable? This assumption, implicit in all predictive studies, must be true if adequate predictions are to be made.

2. Is observation of job performance reliable? Since all evaluations ultimately rest on observation of one sort or another the question of reliability of such observation becomes crucial to prediction.

3. Is job performance unidimensional? Many studies used a single measurement of job performance (usually a continum) to evaluated the predicted performance; it is critical to know whether or not such practice can be defended.

4. Is job performance variability an individual phenomenon? Almost universally individual abilities, traits, and characteristics are related to some measure of job performance; if there are contingency sources of variance in job performance, they must be measured or controlled for meaningful prediction of performance.

In a concluding summary the authors suggest hypothesis to guide future research to lead to more conclusive answers to the above questions. Ultimately, while the personnel psychologist is concerned with the practical matters of prediction their

research should lead to the definition of principles of criterion behavior. For the purposes of the review a criterion is defined as any manifestation of behavior resulting from the interaction of individual characteristics and situational characteristics. While the criterion problem is present and as pressing in clinical and counseling psychology, or social psychology as it is in personnel and industrial psychology, the review is limited to the latter. To the extent that other areas of psychology overlap with personnel and industrial psychology some reference is made to the existing expirical data in those areas.

Erich P. Prien

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A Note on Reliability of Job Evaluations

North American Aviation, Inc., is conducting a study directed toward validating a new plan for the evaluation of managerial positions. The study is being conducted by R. F. Henn and A. R. Childs with consultation by the author of this note.

In the development of a criterion, 58 North American Aviation positions, ranging from layout typist supervisor to chief engineer, and approximating a normal distribution with respect to complexity, were selected. A detailed job description for each position was presented to wage and salary personnel of each of 60 companies located in various parts of the country. These personnel ranked as many positions as possible with respect to the evaluation the job would receive under the specific company's own job evaluation system. Rankings were converted to T-scores, and data were scaled by a variation of the normalized rank method.

Although the study will not be completed for several months, preliminary results indicate a marked degree of agreement among the evaluations given the concerned positions under the various job evaluation plans. The average correlation between pairs of evaluations, made by different companies, was .85.

Mary L. Tenopyr
North American Aviation

PROFESSIONAL NOTES

THE MOTOROLA CASE

Robert L. French[1]

On July 15, 1963, Leon Myart, a 27-year-old Chicago Negro, applied for a job as "Analyzer and Phaser" with Motorola, Inc. Thus began "the Motorola case," an episode which may well prove to be a landmark in the history of industrial psychology. Press accounts of the case have been inadequate for various reasons: the issues are complex, the case developed slowly, and Motorola's aggressive presentation of its side captured the local press and the wire services at an early date. As a result most industrial psychologists, and for that matter, most citizens, have acquired a distorted picture of the case and its implications. The present article is an effort to clarify matters.

Background of the Case

Leon Myart was born in Chicago and attended the Forrestville School and Dunbar Vocational High School, which he left at the age of eighteen to join the Army. He served as a communications lineman in the Army from 1955 to 1959, when he was discharged honorably. During his period of service he received a third-class FCC radio-telephone operator's license, and also enrolled in the "Academy for Adults" as a home-study student. In 1960 he graduated from this institution with a high-school diploma.

After leaving the Army, Myart took a 432-hour evening course in Electronics Shop at Dunbar Vocational High School, which he completed in September, 1959. Several years later he took two courses at Coyne Electrical School, one the general electrical technician course, completed in May, 1961, the other a television-radio technician course, completed in December, 1962. During the same period he held a number of short-term jobs having nothing to do with electronics, but from time to time he had part-time work as a television repairmen.

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1. Until recently Vice President for Research and Testing, Science Research Associates, Dr. French is now devoting full time to counsulting, writing and teaching.

In July, 1963, he saw a Motorola advertisement announcing openings for Analyzers and Phasers. This was a job which involved checking radio, television or phonograph sets as they came off the production line and repairing any defects found.

Myart presented himself at the Motorola plant in Franklin Park, where he was asked to fill out an application form, and to take General Ability Test No. 10, a 5-minute test of verbal and numerical abilities about which more will be said later. After this he was interviewed briefly by Jerry Hoelscher, a Motorola employment interviewer, who told him he would hear further from the company. Altogether Myart spent less than fifteen minutes in the company's office.

During the next two weeks Myart heard nothing from Motorola. The ad for Analyzers and Phasers continued to run. He discussed the matter with a number of friends and agencies, and was advised at the Urban League to file a complaint with the President's Committee on Equal Employment Opportunity, and also with the Illinois Fair Employment Practices Commission. He did file with both agencies on July 29, 1963. His complaint alleged that he had passed the company tests, and that his not being hired was due to racial discrimination.

In the complaint Myart added that Motorola was widely known for racial discriminatory hiring practices. This belief was and is held by a great many civil rights workers, Negroes, and personnel administrators in the Chicago area, and undoubtedly it has had an important background influence in the case.

During the 15-week period preceding Myart's application, seven Negro women who had applied for and been refused assembly jobs at Motorola filed charges with the FEPC. A few words about these cases are in order, since they had a direct bearing on the Myart case. In a preliminary investigation, the Commission found substantial evidence supporting the charges in five cases. These were consolidated into one, and the other two were dismissed for lack of evidence. The Commission then ordered a conciliation conference, an informal meeting of complainant, respondent and commission representatives designed to encourage amicable settlement of a case. The conference convened as scheduled on October 15, but Motorola refused to remain without a court reporter, a feature not permitted under Commission rules for such conferences. Motorola is the only respondent ever to refuse to participate in such a conference. The Commission then served a formal

Complaint of Unfair Labor Practice and scheduled a public hearing before a hearing examiner. Hearings were held in March and April, 1964, several months after the hearing examiner's decision in the Myart case, and during a period when the Myart ruling was being debated vigorously in the press. On May 5, 1964, the case was settled by agreement. Motorola allowed the complainants to reapply, and was then found "in full compliance."

Myart vs. Motorola, Inc.

When Myart's complaint was received, the same machinery was set in motion. As part of its preliminary investigation, the Commission asked Motorola for Myart's application and test forms. These were not supplied. In light of this fact, and of developments in the case of the five women, there appeared to be substance to Myart's charges. A conciliation hearing was set for November 18, but Motorola again refused to attend. The Commission accordingly prepared a formal Complaint, and appointed as hearing examiner, Robert E. Bryant, a Chicago attorney. Mr. Bryant held the hearing on January 27 and 28, 1964, and filed his decision on February 26.

The Hearing Before the Hearing Examiner

At the hearing the principal question concerned Myart's actual test score. Since this proved to be of central importance in the case, it is desirable to have a clear picture of the available facts. Motorola claimed that Myart's score was 4, when a 6 was the minimum for passing. As evidence it presented Myart's application form with a "4" pencilled in at the bottom, a number which the interviewer, Hoelscher, said was the test score. But Motorola did not produce anyone who could tell from direct observation how the number had gotten there, or what score Myart had earned. Neither did Motorola produce Myart's test form. It was established that the company normally held such forms for two months before destroying them. Myart had filed his complaint only two weeks after taking the test, and the Commission had specifically requested the form less than four weeks later (on August 23). Presumably the form should still have been available at the time of this request, and should have been considered important enough as evidence to hold until the hearing. But Motorola not only failed

to produce the form, it failed to offer a reasonable explanation for its absence, or any evidence that a serious effort had been made to produce it.[2]

On the other side, Myart, of course, did not profess to know his score; he merely asserted that he had passed. Walter Ducey, Executive Director of the FEPC, testified that he had given the test to Myart on September 19, at which time Myart scored a 7. Motorola claimed that Ducey had violated standard procedure by using a separate piece of paper as an answer sheet, and had not had the official scoring key. It seems doubtful that Myart's score was helped by these circumstances.[3]

On this central question the hearing examiner concluded for Myart. Available evidence suggested Myart was capable of passing the test, and the company had produced no evidence to disprove this. The failure to provide such evidence, when it had been in the company's possession and was ostensibly crucial to the company's case, could only be interpreted to mean that it would not support the company if it was presented. At any rate, the examiner seemed to reason that Myart had actually passed, and that the company may have altered the record to make it appear otherwise. The decision went on to direct that Myart be offered a job as Analyzer and Phaser, and that the company refrain from similar unfair practices in the future.

Some lesser issues received a fair amount of attention in the hearing and subsequently. Although Motorola claimed that it had refused to employ Myart because he had failed Test No. 10, the company referred to several other aspects of his

2. Motorola's position was not appreciably improved by testimony at the review hearing before the full Commission, where a receptionist testified as to personnel processing in general, but could not remember Myart, and data processing personnel produced a punched card showing a "4" as Myart's test score.

3. Testimony in the review hearing revealed that Myart had scored a 6 on the same test on October 2, 1961, when he had applied for a job with Montgomery Ward. It is understood also that after Myart's rejection at Motorola, Dr. Shurrager, author of the test, had administered two versions to Myart at the request of Frank Fager, the Air Force representative handling Myart's complaint before the President's Committee. Although no testimony was given as to the scores, Myart is reported to have earned a 9 and a 15 on these forms.

application which, it implied, would have led to his rejection anyhow. He had not, for example, listed all of his relevant experience on the application form, though he claimed to have told Hoelscher about this, and Hoelscher could not definitely deny it. In addition his application showed that he had once been arrested in Georgia, the charge being, as he explained to Hoelscher, sodomy. But the charge had not been pressed to the point of trial, there were good reasons to doubt that any such offense occurred, and, after some confliction testimony, it finally become clear that Motorola would normally treat such information as something to be investigated if other indications all pointed to hiring. In any event, the arrest record had not figured in the decision not to hire Myart. Again, in the course of the hearing, the company's attorneys asked Myart a series of questions reputedly used after Test No. 10 in selection process for Analyzers and Phasers, and attempted to interpret his performance as evidence of lack of qualifications. These various points, and some others, were waved aside by the hearing examiner, except for his issuance of an order that Motorola modify its application form to facilitate the recording of relevant experience.

Had the hearing concluded at this juncture, the Motorola case would have been less complicated, less notorious, and in the long run, perhaps, less constructive. But the examiner went further, well beyond the limits of the evidence presented, to direct that use of Test No. 10 be stopped, and that any new test developed in its place "reflect and equate inequalities and environmental factors among the disadvantaged and culturally deprived groups." He argued that the test, developed in 1949, was obsolete, had been normed on "advantaged groups," and did not "lend itself to equal opportunity to qualify for the hitherto culturally deprived and the disadvantaged groups."

Review By the Full Commission

Motorola promptly petitioned for a review of the decision by the full commission. Hearings were held on April 18, May 25, July 14, and July 15. The major portion of hearing time was devoted to the question whether Test No. 10 was unfairly discriminatory. Testifying for Motorola, to the effect that the test discriminated among people only in terms of their trainability, and that a test could not discriminate between racial groups, were the following:

Dr. Phil S. Shurrager, co-author of the test (with Dr.

Harriet Shurrager and G. M. Ross), Professor and Chairman, Department of Psychology, Illinois Institute of Technology

Dr. Morris Aderman, Associate Professor of Psychology, Illinois Institute of Technology

Dr. Marion Groves, Associate Professor of Psychology, Illinois Institute of Technology

Dr. Robert Roth, Assistant Professor of Psychology, Illinois Institute of Technology

Dr. Ira Salisbury, Assistant Professor of Psychology, Illinoise Institute of Technology.

On the plaintiff's side four witnesses testified in effect that the test was inadequately reliable, probably not too relevant to the job, and probably unfairly discriminatory. These were:

Dr. Benjamin Bloom, Professor of Education, University of Chicago

Dr. Allison Davis, Professor of Education, University of Chicago

Dr. Robert L. French, Vice President for Research and Testing, Science Research Associates

Dr. Lloyd G. Humphreys, Professor and Head, Department of Psychology, University of Illinois.[4]

A discussion of the test will be presented below.

On November 18, 1964 the Commission issued its unanimous decision. It supported the hearing examiner's finding that

4. A mailing piece prepared by Motorola had this to say about these witnesses. "The four experts who testified for complainant consisted of (1) an anthropologist-sociologist, (2) a theoretical psychologist, (3) a college psychology professor and (4) an employee of a nationally advertisted company which sells tests. . . .None of the four experts for complainant had any experience in the development or application of industrial pre-employment testing for production workers; they stated conclusions from published studies made in the noncomparable fields of education and military testing." The statement neglected to add that Motorola representatives had used all of the resources of intimidation at their command in the effort to dissuade these witnesses from appearing.

Myart had passed the test, and had been denied employment because of his race. It refused to pass on the question whether the test was discriminatory, since Myart had been adjudged to have passed the test, and had not himself complained about the test as such. It did not support the order to modify the application form. It did not support the order to hire Myart. It did, however, direct Motorola to pay Myart one thousand dollars in compensation for the wrong done him.

Motorola immediately resumed testing with Test No. 10, and appealed the decision to the Cook County Circuit Court.

A model of lucidity in many respects, the decision fell short of adequate clarity on two important points. First it did not say just what Motorola had done that was wrong. This is understandable since, strictly speaking, nobody knew. But the relevant evidence, and the reasoning from this, were not recapitulated, and people were puzzled. Examiner Bryant's decisions and Motorola's publicity had created a widespread belief that the basic issue in the case involved the company's right to use a selection test of its own choosing. If the Commission did not question the test, where did it see discrimination, and why should Motorola be penalized?

Second, the decision did not explain why Motorola was fined but not ordered to reconsider Myart for employment. The Commission did make clear that an order to employ Myart was inappropriate because his qualifications for the job had been fully assessed, but on the question of directing Motorola to make an adequate assessment, the decision offered only the following comment: "Respondent has made it clear during the course of these hearings that no purpose in furtherance of this Act would be served by ordering that the Complainant be further processed in its employment procedures."

On January 12, 1965, the Commission sought to clarify the first point, at least, by amending the decision. A statement was added to the effect that someone at Motorola had marked Myart's application with a failing score, when he had in fact passed, and that this was done with intent to discriminate on account of race. This statement was also incorporated in an answer to Motorola which was filed with the Circuit Court.

Circuit Court Decision on Appeal

The decision of Circuit Judge Dougherty on April 27, 1965, reversed the ruling requiring Motorola to pay Myart $1,000, on

the grounds that the Commission had no power to assess damages. The judge upheld the Commission's finding of discrimination. He said that from the record he would have interpreted the facts differently, but that it was not his function to weigh the evidence, only to determine whether there was competent evidence from which the Commission might reasonably have reached the decision it did.

Motorola again appealed the decision, this time to the State Supreme Court. There Myart vs. Motorola rests for the moment.

Motorola's Test No. 10

Although its decision in Myart vs. Motorola avoided the issue of testing as such, the Commission observed that, given appropriate circumstances, future cases might conceivably raise a question of unfair discrimination through use of selection tests. Thus the matter remains a timely one. In any event the prominence accorded Test No. 10 during the case dictates some attention to it now.

Nature of the Test

Test No. 10 is a 5-minute test of general ability developed in 1949 by Shurrager, Shurrager, and Ross, and used by Motorola since 1960 as an initial low-level screening device with all applicants for employment. Candidates who pass this hurdle are given additional tests appropriate to the jobs for which they are applying; those who fail are interviewed briefly and not considered further. The raw score needed for passing is 6 items correct out of the total of 28. This score is described by Shurrager as being one standard deviation below the mean score of 8 obtained for the standardization group, i. e., Motorola production personnel on the job in 1960.

The test itself consists of 28 items involving verbal comprehension and reasoning, and arithmetical reasoning. Items are spiralled and increase fairly rapidly in difficulty.

Some questions occur to anyone who inspected the items carefully. Thus four items are based on the stem:

"B is shorter than C
A is taller than C
A's height is less than B's"

A number of items seem to present more than one satisfactory alternative. Thus:

"2. When a large fire occurs, the first thing to do is:

(1) call the foreman; (2) turn in the alarm; (3) put it out; (4) run.

4. A desert always has:

(1) sun; (2) sand; (3) palm trees; (4) camels.

12. Which of the following is most unlike the others:

(1) electrician; (2) janitor; (3) inspector; (4) welder.

15. Which of the following is most like a circle:

(1) sphere; (2) cone; (3) ellipse; (4) cylinder.

20. A house most resembles a:

(1) tent; (2) ship; (3) cave; (4) castle."

When asked in a personal discussion about the keying of these items, Shurrager's reply indicated that they had been keyed empirically on the original standardization group.

Reliability and Validity

In none of the hearings were any data presented on the reliability and validity of the test. As a result of some small scale studies with students, Dr. Lloyd Humphreys estimated test-retest reliability in the .50's. On December 16, 1964, Motorola mailed a statement to psychologists which contained some relevant information. As the only published data on the test, these deserve verbatim quotation and careful scrutiny. One section, headed "Validity and Reliability of Test 10," reads as follows:

> "In the language of the psychologist, the ability of the test to yield acceptable consistent measurements is indicated by a test-retest reliability coefficient of .8. This value was reported in the original standardization of the test and subsequent studies have demonstrated reliabilities ranging from .7 to .9. Test 10 correlates .7 with the Otis 30 minute paper and pencil test and has

been correlated with other standard measures of intelligence. Its relationship with the Wechsler-Bellevue, an individually administered test of intelligence, was also found to be .7. These coefficients meet acceptable standards."

Additional evidence presumably bearing on validity was presented under the heading, "Studies Demonstrate Value of Testing:"

"Significant variations in mean scores obtained by various groups have been found. In Chicago area plants, wirers and solderers obtained a mean score of approximately 8 correct items. In Motorola's Phoenix, Arizona plants, the mean score of a comparable goup of production people was approximately 11. More highly skilled groups tend to score higher. For example, each group of television phaser and analyzers in Chicago obtained mean scores above 14. The mean score of this job is 6 points higher than the mean of wirers and solderers and 8 points above the cut-off score used on applicants.

"In the last three years, new applicants for wiring and soldering jobs have been selected in part on the basis of their test scores. During this time the maximum number of days required of new employees to complete the company training program has been cut in half.

"In one study in 1960, a group of applicants was given the test battery but the decision to hire or not hire was made without consideration of the test scores. A follow-up study was made some time later. This study revealed that a significant proportion of those accepted who had since terminated would not have been accepted originally if their test scores had been considered at the time of employment.

"In another study, 215 electronic students in a technical school were given Test 10 plus a short technical achievement test used by Motorola foremen in selecting phasers and analyzers. The correlation between these two tests was statistically significant. There is a demonstrable relationship between performance on Test 10 and the ability to acquire technical information."

Such, apparently, are the data on reliability and validity.

Fairness of the Test

Even if the test were adequately valid for applicants in general, questions might reasonably be asked about its fairness as between different groups making up the potential applicant population. This general question, rather than traditional concerns for reliability and validity, was the focus of interest in the test during the hearings. Motorola responded to this line of inquiry by carrying out a study early in 1964, about five months after Myart filed his complaint. This study was described in a 6-page statement on the case issued by Motorola in August, 1964, in the following terms:

"SPECIAL STUDY OF TEST SHOWS IT IS RACE FREE

In the review hearing before the full F. E. P. Commission on April 18, 1964 Dr. Phil S. Shurrager and Dr. Ira Salisbury presented the results of a special study which showed that the tests as used in Motorola's employment procedures, did not discriminate against Negroes. Salisbury testified that test scores of 1072 Motorola applicants for a six-week period from January to March, 1964, were studied. Of 274 Negro applicants, 220 or 80.3% achieved a score of 6 or higher which is passing. Of 798 non-Negroes, 658 or 82.5% passed. The difference of 2.2% between Negroes and non-Negroes was not statistically significant, according to Dr. Salisbury and Dr. Shurrager. The 54 Negroes who did not pass the test achieved an average score of 3.37 while the 140 non-Negroes who failed scored an average of 3.31. This study was on semi-skilled hourly production jobs. If Motorola had not been charged with using a racially biased test, this study could not have been made. It is illegal to record race on application forms."

This study, and subsequent statements about it by Motorola, are remarkable in two respects: first, in revealing Motorola's serious confusion about the problem of test fairness; second, in the extremes to which Motorola went to avoid recognizing the obvious explanation of the Shurrager-Salisbury results.

The obvious explanation of the unusual finding of no difference in scores between white and Negro applicants is that the Negro applicants were relatively superior representatives of the Negro population. This is borne out by Motorola's own

data showing a somewhat higher educational level for Negro than for white applicants in this sample. Considering all the publicity Motorola had received, it would be surprising indeed at the date of the study to find many Negroes applying who had serious reason to doubt their own general ability. But Motorola saw the finding as evidence of the uniqueness of the industrial situation, and in the December mailing to psychologists advanced the theory that the urge to get a job caused Negroes (but not whites, presumably) to perform better than they would do in schools or military situations. In this same release Motorola described this study as having been carried out "during the period January to March, 1963," and omitted the comment that the study could not legally have been made earlier.

By seeking an explanation for the unusual results of the study, while at the same time continuing to regard them as evidence that Test No. 10 is "race free," Motorola compounded a confusion which was already bad enough. Critics of the test in this case are not really concerned that at present representative Negroes will score lower than representative whites. The issue is not one of "race free-ness," as defined by Motorola. The concern is--though it has not always been articulated clearly--that tests not disqualify people who, because of inferior educational opportunities, lack certain skills, if these skills are not actually needed for the job, or if they can quickly be learned on the job, or if a deficiency can be compensated for by possession of other characteristics. The issue is better termed one of fairness, and there are reasonable grounds for questioning the fairness of Motorola's procedure. Evidence for the validity of the test is negligible. Its demands on reading speed seem out of proportion to the realities of Motorola's production jobs, and calculated to exclude people deficient in schooling but potentially competent as production workers. It includes items keyed empirically on a dominantly, if not totally, white group. Its very short time limit invites injustice at the hands of a careless or prejudiced examiner. Finally, the testing situation and overall program are lacking--as the case brought out dramatically--in the kinds of operational controls that should characterize a professional effort to assure fairness.

Motorola vs. the FEPC

While Myart vs. Motorola was making its way through the FEPC machinery of investigations, hearings and appeals, a related Motorola case, which might be called "Motorola vs.

the FEPC," was being fought out in the newspapers, under the tables, as it were, at the Chicago hearings, and in the cloak rooms in Springfield.

This Motorola case first came to public notice during the preliminary rounds in the consolidated case of the five women. The hearing examiner appointed by the Commission was George Leighton, a Negro attorney in Chicago who had had long experience in civil rights cases, and been President of the local NAACP. In November, 1963, shortly after this appointment, Motorola petitioned for a change of venue, on the grounds that Leighton, because of his race and experience, could not render an unbiased judgment. The petition was denied. Not long after this Robert Bryant, also a Negro, was appointed hearing examiner in Myart vs. Motorola, and in February he gave the ruling which was discussed at length earlier. At the next hearing in the case of the five women, on March 11, 1964, Mr. Robert Nystrom, attorney representing Motorola, presented a second petiton for a change in venue. This reiterated the facts concerning Leighton's background, asserted that in the current highly emotional climate of the Negro community any ruling adverse to a Negro complainant would carry an economic penalty for Leighton, and concluded that Leighton could not act without bias. This petition was also denied. In the course of the hearing Nystrom alleged that the Commission was revealing a bias against Motorola by appointing Negro hearing examiners in both cases affecting the company. Nystrom indicated his intention of seeking to subpoena FEPC records to show that the handling of cases and assignment of examiners were unfair.[5]

In evaluating these and subsequent developments in Motorola vs. the FEPC, the reader should know something about the Commission. As provided by the Fair Employment Practices Act of 1961, this body consists of five members appointed for four-year terms by the Governor with the advice and consent of the Senate. During the period of the Motorola case, the members were:

Charles W. Gray of Mt. Prospect, Chairman, Director of Industrial Relations for the Photo Products Division of Bell and Howell Company, former economics professor and World War II veteran, a Protestant and politically independent.

5. In additon to Bryant and Leighton, the Commission had appointed four other attorneys as hearing examiners, all of them white. Commission practice called for assigning these to new hearings on a rotational basis.

Helen C. Foreman of Jacksonville, wife, grandmother, and former history teacher, a member of the Illinois Commission on Human Relations from 1950 to 1961, active nationally in the League of Women Voters and locally in various civic organizations, a Catholic and a Republican.

James H. Kemp of Chicago, President of Local 189 of the Building Service Employees' International Union, AFL-CIO, board member of the Chicago branch of the NAACP and the Catholic Interracial Council, active in various civic affairs, a Negro and a Democrat.

Robert J. Myers of Springfield, a practicing attorney since 1938, with interludes for Army service in World War II, and participation in a family business after the war, active locally and nationally in civic, religious, human relations, and civil rights organizations, a Jew and a Democrat.

George L. Seaton of Hinsdale, an electrical engineer, Assistant Vice President of Illinois Bell Telephone Company, Board member of the Metropolitan Housing and Planning Council, the Chicago Council of the Boy Scouts, and other organizations, recipient of numerous awards for civic activities, a Protestant and a Republican.

The Commission's Executive Director, Walter Ducey, had held this position since the beginning of the Commission's activities in 1962. Possessor of an M. A. in Sociology from the University of Chicago, he had worked two years at the University's Industrial Relations Center, and eight years for the Chicago Commission on Human Relations, mostly on projects involving fair employment practices.

This was the body accused of bias by Motorola. Mr. Nystrom did in fact petition the Circuit Court in March for a writ of mandamus which would open to him all of the records of the FEPC. But on April 9 he withdrew his petition, stating that the information desired had already been obtained. Possibly by that time he had taken a look at the Commission's actual record.

The record is pretty clear. Table 1 shows how cases filed during the first three years of FEPC's life were handled. There it can be seen that:

(1) Most of the complaints filed with the commission were dismissed for lack either of evidence or of FEPC jurisdiction.

Table 1

Outcome of Charges Filed with Illinois FEPC

During Its First Three Years

Charges Filed (1/1/62 to 12/31/64)		569
Resolved as of 12/31/64	516	
Still open as of 12/31/64	53*	
Analysis of Resolved Cases		
Resolved before FEPC finding		114
Settled voluntarily	88	
Complaint withdrawn (with FEPC approval)	15	
Contact lost with complaint	11	
Resolved by FEPC investigation		319
Lack of evidence	263	
Lack of FEPC jurisdiction	56	
Resolved by conciliation conference		72
Resolved after public hearings ordered		11
Settled before hearing held	1	
Settled during hearing	6**	
Resolved by Examiner's decision	2***	
Resolved by appeal to full Commission	2****	

*Includes one case, Myart vs. Motorola, which had gone beyond the stage of conciliation and was still unresolved as of 12/31/64.

**The case of 5 women vs. Motorola counts as 5 cases here.

***In both cases the ruling was "no jurisdiction."

****In one case the ruling was "no jurisdiction," in the other it was against complainant. No case was appealed beyond the FEPC.

(2) Nearly all of the cases showing signs of unfair practice were settled informally and without publicity.

(3) Of cases resolved during this three-year period, only two per cent went as far as a public hearing. Half of these involved Motorola.

(4) Aside from the Myart case, only two cases were appealed to the full commission. And only the Myart case has been appealed beyond the FEPC.

But not all aspects of the case were to be decided on the record. The next development occurred on April 18, the first day of the hearing of the appeal before the whole Commission. At the outset of the hearing Motorola proposed that Commissioners Gray and Kemp disqualify themselves, Gray because of a statement he had made recently for publication by the Illinois Chamber of Commerce, which in Motorola's view constituted a pre-judgment of the case; Kemp because Examiner Bryant turned out to have served as his attorney in a divorce suit. On inquiry it appears that Kemp had not suggested Bryant's selection, and that, considering all of the circumstances, Gray's statement was mild indeed. (What he had said in draft copy was that Motorola had "refused" to produce Myart's test paper; Motorola claimed that it had only "failed" to produce it.) Although neither Commissioner did step aside, the Commission would probably concede in retrospect that Motorola had a technically legitimate complaint in both instances. Gray should have said nothing publicly just before the review hearing, and Bryant should not have been selected as hearing examiner.

While the review hearings continued, Motorola launched no more major attacks on the FEPC, but after July the company resumed open hostilities. In August Motorola issued a mailing piece, referred to on several earlier occasions, in which it summarized the case from its point of view. Here, among other charges, it alleged that given the same information as the FEPC, the President's Committee had not proceeded against Motorola, presumably a proof of the FEPC's bias against the company. Actually the President's Committee had simply made no finding. Foreshadowing a campaign shortly to start, Motorola's statement also contended that the Commission was allowing the case to drag.

On September 15, just two months after the final review hearing, Mr. Nystrom attended a meeting of the FEPC in Springfield, where he accused it of stalling until after the November 3 election, and demanded an early decision. Two weeks later, Motorola, joined by 10 manufacturers' associations,

brought suit in the Cook County Circuit Court for a writ of mandamus to require a decision from the FEPC before the election. Judge Dougherty did not agree that the Commission was dilatory, and refused the writ.[6] On November 10 Motorola publicly accused the FEPC of intimidation and misconduct.

The Commission's decision on November 18 touched off a storm, partly because of the unfortunate lack of explicitness which was remarked earlier. The Chicago Tribune, Arthur Krock and editorialists of similar persuasion, be labored the FEPC without mercy. Emboldened, doubtless, by this support, Mr. Kenneth Piper, Motorola's "Vice President for Human Relations," gave a speech before the Illinois State Chamber of Commerce on November 27, in which he offered the services of Motorola's experienced lawyers and of its Dr. Shurrager to any employer who might wish to fight the FEPC on the right to test.

Although Mr. Piper was applauded loudly by his Chamber audience, there is reason to believe that at least some of the responsible leaders of the business community may have reacted to this statement with less than complete approval, and that possibly even Motorola may have decided it had gone too far.[7] In any event, the public furor presently relented to a degree, and Motorola turned its attention to the Circuit Court appeal and, it now appears, to the continuance of its fight through political channels.

The terms of Gray, Kemp and Seaton on the Commission were due to expire in January, 1965. When Governor Kerner sent their renominations to the Senate, Motorola set itself to bring about their defeat, particularly Gray's. No one would suppose that all of the company's activities in this phase of the campaign are a matter of public record, but it must have been fairly obvious to anyone reading the newspapers during the

6. In evaluating the time required by the Commission to reach a decision, it should be borne in mind that the Commissioners were busy people, doing this job without pay, and meeting usually one per month to deal with the current accumulation of cases. In the Myart case each reviewed the entire record, of which the Commission had but one copy, before any collective discussion.

7. Dr. Shurrager has not yet protested audibly being placed in this position.

early part of 1965 that Motorola had formed a coalition with the Chicago Tribune, a clutch of Illinois manufacturers' organizations represented by a Chicago attorney named Douglas F. Stevenson, and the conservative wing of the Republican part in Illinois. It is known that Mr. Robert Galvin, Chairman of Motorola, wrote to all members of the Senate Executive Committee urging rejection of the appointees, and that Motorola circulated widely a statement with suggested texts for telegrams to be sent to Executive Committee members. Among those testifying against Gray was Dr. James S. Peters, Director of the Bureau of Rehabilitation of the State of Connecticut, a former student of Shurrager's.

During the early part of April, while the Senate Executive Committee delayed action on the appointments, the Tribune carried a series of excited stories and editorials concerning "payoff" involving the FEPC. Charges in this vein were voiced by Mr. Stevenson, echoed by Mr. Piper, and reported and elaborated on by the Tribune itself, which accused the Commission of "selling indulgences." The Senate Executive Committee professed great interest. But as soon as the Senate had voted on April 21, the charges were forgotten completely, and most newspaper readers and taxpayers probably never did learn that the whole thing stemmed from three cases in which agreements initiated and agreed upon by complainant and respondent, and merely concurred in by the FEPC, had involved a cash payment to or on behalf of the complainant, for back pay or legal expenses.

As the Chicago Daily News observed later, the campaign was "well-financed," and it "paid off." The Executive Committee recommended against Gray's nomination, and he was defeated in the Senate by a party-line vote, 31 Republicans to 23 Democrats. Seaton and Kemp received enough Republican support to get through by a margin of 37 to 16. The verdict moved the Daily News to comment editorially on the "Vendetta Against the FEPC." Pointing to the inconsistency of the Senate in penalizing Gray alone for what had been unanimous Commission decisions, and citing the price of "offending powerful business interests," the Daily News concluded that "the personal attack on Gray was for the most part a devious effort to discredit FEPC without actually destroying it." "No one," the editorial continued, "has questioned Gray's integrity. He admitted mistakes in seeking a course through uncharted waters, but nevertheless could point to a commendable record of carrying out the intent of the law. In refusing to reconfirm

him, the Senate has set back the cause of fair employment, and made dedication to public service a hazardous preoccupation in Illinois."[8]

It is too early to count Motorola's gains from this victory, if there are real gains, or to assess the costs to the company, which may prove considerable. A possible straw in the wind may be found in the recently announced intention of certain Motorola stockholders to bring suit against management to recover funds spent in the campaign against the FEPC.

Implications of the Case for Psychology

Interesting as the facts of the several Motorola cases may be, it is time to ask what if anything they mean for industrial psychology, or for psychology at large.

Whatever the specific issues in the case, its major consequence has been to focus attention on the implications of selection testing for fair employment. For years sociologists have accused tests of serving as vehicles of discrimination in the employment process. Psychologists have either ignored these charges, or answered, in what they regarded with satisfaction as a hard-headed manner, that the abilities they were measuring were essential to job success regardless of their distribution among different groups in the population. The question was not really important because there were so few Negroes, or members of other submerged minorities, who were anywhere close to qualifying for good jobs. But the civil rights revolution reflects as much as anything the remarkable educational progress which Negroes have already made in this century. So now there are more Negroes who have the background to learn skilled jobs and professions, and there are many more coming along, and they refuse to take "No" for an answer. Questions about previously sacrosanct testing procedures are thus bound to arise.

Not only does the Motorola case dramatize this uncomfortable situation in which convention selection testing unexpectedly finds itself, but it warns that test procedures per se may conceivably become a matter of FEPC inquiry in future cases. It is doubtful that the so-called Tower amendment, a by-product of the Motorola case, will head off such a development, as some psychologists have supposed. This provision of the Civil Rights Act of 1964 reads as follows:

8. Chicago Daily News, April 23, 1965.

". . .nor shall it be an unlawful employment practice for an employer to give and to act upon the results of any professionally developed ability test provided that such test, its administration or action upon the results is not designed, intended or used to discriminate because of race, color, religion, sex or national origin."

Quite obviously the terms of this provision call for interpretation, and by the time interpretations have been established through actual test it may turn out that a good many supposedly professional tests now in use have been proscribed. Regardless of presumed legal restraints, the impetus of the civil rights movement certainly appears to be such that any procedures which introduce unjustifiable discrimination in employment will sooner or later be swept aside.

The challenge to psychologists, then, is to establish and maintain standards of selection testing which take adequate notice of the heretofore neglected problems highlighted by the civil rights movement.[9] If there is a threat of governmental control of selection testing, the best defense against it lies in prompt action to lay a secure basis for professional self-regulation. But whether standards are enforced privately or publicly, psychologists have a contribution to make, and will be expected to make it. Lawyers and FEPC staff members, who usually represent the public interest in these matters, lack familiarity with psychology and psychometrics. They will ask increasingly what characteristics assure fairness in a selection test program, and they will naturally tend to think that psychologists should be able to tell them, without pronounced disagreement.

On the evidence of the Motorola case, it is far from certain that this expectation is warranted. Few signs of professional consensus came to light as the case progressed. Witnesses for the two sides differed to an appalling but possibly predictable degree, and still greater variability was introduced by the informal and largely unrecorded comments of psychologists not so close to the case. One gets the impression that there are wide differences at all levels of theory and practice, differences of an order that suggests few people have really given the matter much thought. Thus it is still possible in 1965 to find psychologists who think aptitude scores are innately determined, that racial differences in performance have little to do with education opportunity, that validation of selection tests in industry is a dispensable luxury, that a validity coefficient, if found, is a validity coefficient, applicable with sublime impartiality to anyone who may think he wants the job. These are, perhaps, the extreme cases, but the essential fact of wide differences of opinion cannot be overlooked.

9. In this and some other connections, it is instructive to note a recent report, "The unfinished business of Negro jobs," (Business Week, June 12, 1965) which points out that, despite protestations to the contrary in public statements, many employers are relaxing their usual test standards to make possible employment of more Negroes. One wonders how many are doing this on the basis of empirical data, and what effect executive action in the absence of data may have on future testing practice.

Actually the 1954 Technical Recommendations constitute a set of standards which, if applied to the selection programs of individual companies, could help greatly in dealing with the problem of fairness. For example, Recommendation C15 reads as follows:

"If the validity of the test can reasonably be expected to be different in subgroups which can be identified when the test is given, the manual should report the validity for each group separately or should report that no difference was found."

If this recommendation had been observed at Motorola, and the results used intelligently, there would have been no Motorola case.

But there are probably additional considerations emerging on analysis of the fairness problem which go beyond the present scope of the Technical Recommendations, and which should figure in the development of a set of standards for fair selection testing programs. What attention should validation studies pay, for example, to the possibility that just a little more learning time on the job might result in a considerably better performance on the part of applicants whose backgrounds lacked relevant learning opportunities? Can reasonable standards be devised which will assure a minimum frequency of biased items? What quality controls are desirable to assure fairness in a testing program? These are some of the questions to which attention should be addressed.

It is not the object of this paper to propose standards, but only to urge the timeliness of action and the need for a fresh point of view. In addition there should be--and probably will be as a result of the Motorola case--much more active discussion of the whole subject, to facilitate dissemination of formal standards and development of the kind of informal consensus on which individual action of a truly professional order depends.

Both in the formulation of suitable standards, and in their application to testing programs in the nation's industries, industrial psychologists should be expected to play leading parts. During the Motorola case reputable industrial psychologists seem to have viewed the prospect of active involvement with great reluctance. It may be hoped that this does not constitute a valid test of their readiness to accept the challenge presented by the problem of fair employment.

THE USE OF TESTS AND FAIR EMPLOYMENT IN THE ARMED SERVICES

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The "Motorola Case," discussed in the preceding article, (4) raised serious questions about the use, and possibly misuse, of tests for purposes of personnel selection and classification. That tests can be misused cannot be denied. A case in point is the use of so-called "literacy tests" by registrars of voters in some southern states. Whites, in general, "pass" such a test; Negroes, in general, "fail" such a test regardless of their actual test performance. However, that the use of tests per se always results in discrimination against Negroes can be vehemently denied, as the evidence presented below indicates.

Tests have been used by the Armed Services for personnel classification, selection, and/or assignment since the Army Alpha days of World War I. Current test batteries used by the Armed Forces are quite similar to each other in content and purpose (3, 275) and in all services tests are used consistently and effectively.

The policies regarding fair employment in the Armed Services are clear. Former President Truman set the stage in the late 1940's by his so-called "desegregation order" for the Armed Services. A recent report of the President's Committee on Equal Opportunity in the Armed Forces concluded, "There are not quotas or other forms of limitations on the recruiting of Negroes or on their assignment to career fields. Similarly, all written policies governing advancement and promotion through both enlisted and commissioned ranks are nondiscriminatory in character." (1, 5).

A policy well adhered to is that decisions must be made about individuals but conclusions cannot be drawn about an individual based only on the information about the groups to which he belongs. Each individual is judged and evaluated on the basis of all pertinent information available about him. In the selection and classification of personnel, such items as race, color, or creed are not asked for, not recorded, and frequently not known; consequently, they do not enter into the

selection process. Instead, the bases for personnel classification are the results of detailed aptitude testing plus an evaluation of pertinent training, work experiences, and interests. (1, 16).

Another principle followed is that we cannot afford not to train and develop all individuals to meet the requirements of the Services insofar as feasible. This means selecting, training, promoting, and retraining those who best meet the needs of the Service. Best men available must be assigned to all jobs - especially the critical ones. Therefore, men are evaluated as they arrive or as they progress in the services and they are assigned accordingly.

This does not mean that the Services try to retrain or rehabilitate men for society. This, it is felt, would detract from the mission of the Services. For example, if an applicant or recruit is discovered to be illiterate, shows signs of maladjustment, or otherwise fails to meet established mental or physical standards, correction of these difficulties is viewed as the responsibility of society or some other governmental agency, not of the Services. However, after the deficiency has been corrected, the Services will gladly use the man without discrimination wherever appropriate.

That the above policies seem to be working is apparent from the following quotations. "Today there is evidence that Negroes in the Armed Forces have a greater opportunity than in the civilian economy to acquire skills and to make effective use of the skills and professional training they have acquired" (2, 174). . . . . "Both Negro enlisted men and officers have attained higher occupational levels than have Negroes in the civilian employment market. Negro enlisted men enjoy relatively better opportunities in the Armed Forces than in the civilian economy in every clerical, technical, and skilled field for which the data permit comparison" (2, 179). "Although the distribution is quite uneven . . . Negroes have placed in virtually all of the numerous job specialties and career fields which exist in the various Services," (1, 10). Furthermore, the participation of Negroes in most technical career fields is increasing. The improvement has been dramatic in the Navy and Marine Corps. There is "an increasing proportion of Negroes in the 'white collar' skills and in many of the more technical specialties." (1, 18).

Data presented in the Report of the U. S. Commission on Civil Rights (2, 223) support the above statements and also show

that among enlisted personnel, Negroes constitute a higher percentage of the total manpower than they do in comparable civilian fields, except in the case of service occupations.

The report continues: "Further, while the Negro proportion of officers in the Armed Forces is relatively small (1.6%), it represents a substantial increase since 1948. It is approximately the same as that which prevails among civilian managerial and professional occupations where Negroes constitute 1.9% of all workers" (2, 174). The report also points out the "Among enlisted men, Negroes are underrepresented in the top three enlisted ranks in the Army and Navy and in the top four ranks in the Air Force and Marines" (2, 176). However, this may be partly explained because none of the higher NCO ranks can be achieved without long periods of duty in the Service and there are not many Negroes who have yet served the minimum time required (1, 21).

Finally, it should be mentioned that "Although the proportion of Negroes eligible to reenlist is slightly smaller than four whites, the reenlistment rate of Negro servicemen is higher than for whites. This suggests that Negroes believe the Armed Services offer them greater career opportunities than they can find in the civilian economy." (2, 179).

In summary: There is no evidence that tests are being misused to discriminate against Negroes or any subgroup in the Armed Services. In fact, there is evidence that Negroes in the Armed Forces have a greater opportunity than in the civilian economy to acquire skills and to make effective use of the skills and professional training they have acquired. It is reasonable to conclude that, at least to some extent, the greater opportunities Negroes have in the services result because, and not in spite of, the fact that tests are used without bias to select men for classification and assignment. In short, the use of tests in the services contributes to reducing discrimination.

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The Geographical Distribution of Industrial Psychologists Who Are Members of Division 14

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The following table presents information on the geographical distribution of Divison 14 members (1964), in comparison with members of APA (1964 Directory), and the American population (1961 census estimates).

Industrial psychologists were more densely concentrated than APA members generally, who were more densely concentrated than the U. S. population. Almost 2 out of 3 (62.0 per cent) of all industrial psychologists who have Division membership were located in 7 states, each of which has 5.0 per cent or more of the total membership of the Division: New York, 16.4 per cent; California, 13.2 per cent; Illinois, 8.5 per cent; Ohio, 6.4 per cent; Michigan, 6.3 per cent; Pennsylvania, 5.7 per cent; and New Jersey, 5.5 per cent. For APA as a whole, 58.1 per cent of the members were located in these 7 states, while 40.7 per cent of the U. S. population was located in them. The relative order of distribution, however, was fairly similar. Rank order (rho) correlations among the 3 distributions were as follows:

U.S. Population x APA Membership	.84
U.S. Population x Division 14 Membership	.81
APA Membership x Division 14 Membership	.96

The location for which the relative frequencies were most discrepant was the District of Columbia: it ranked 9th on APA membership with 3.2 per cent of the total; 16th on Division 14 membership with 1.8 per cent of the total, and 41st on U.S. population with 0.4 per cent of the total.

	U.S. Population			APA Membership			Division 14 Membership		
	Number*	%	Rank	Number	%	Rank	Number	%	Rank
Total	185360	100.0	–	21754	100.0	–	892	100.0	–
Northeast	10723	5.8	–	1645	7.6	–	64	7.2	–
Maine	992	0.5	37	60	0.3	39.5	0	0	46.5
New Hampshire	621	0.3	47	49	0.2	43	5	0.6	26.5
Vermont	395	0.2	49	36	0.2	46	0	0	46.5
Massachusetts	5234	2.8	9	963	4.4	6	22	2.5	13
Rhode Island	867	0.5	40	85	0.4	34	2	0.2	37.5
Connecticut	2614	1.4	25	452	2.1	12	35	3.9	8

	U.S. Population			APA Membership			Division 14 Membership		
	Number	%	Rank	Number	%	Rank	Number	%	Rank
Middle Atlantic	34745	18.7	–	6200	28.5	–	246	27.6	–
New York	17033	9.2	1	4042	18.6	1	146	16.4	1
New Jersey	6244	3.4	8	878	4.0	7	49	5.5	7
Pennsylvania	11468	6.2	3	1280	5.9	4	51	5.7	6
East North Central	36822	19.9	–	3856	17.7	–	230	25.8	–
Ohio	9876	5.3	5	970	4.5	5	57	6.4	4
Indiana	4711	2.5	11	383	1.8	16	24	2.7	11.5
Illinois	10258	5.5	4	1305	6.0	3	76	8.5	3
Michigan	7954	4.3	7	835	3.8	8	56	6.3	5
Wisconsin	4022	2.2	15	363	1.7	17	17	1.9	15
West North Central	15581	8.4	–	1461	6.7	–	57	6.4	–
Minnesota	3470	1.9	18	439	2.0	14	26	2.9	10
Iowa	2779	1.5	24	227	1.0	23	5	0.6	26.5
Missouri	4378	2.4	13	332	1.5	18	13	1.5	17
North Dakota	640	0.3	46	43	0.2	44	0	0	46.5
South Dakota	690	0.4	42	34	0.2	47	0	0	46.5
Nebraska	1431	0.8	35	111	0.5	32	5	0.6	26.5
Kansas	2194	1.2	30	275	1.3	20	8	0.9	21
South Atlantic	26545	14.3	–	2686	12.3	–	92	10.3	–
Delaware	458	0.2	48	83	0.4	35	3	0.3	35
Maryland	3188	1.7	21	516	2.4	11	24	2.7	11.5
District of Columbia	761	0.4	41	689	3.2	9	16	1.8	16
Virginia	4059	2.2	14	388	1.9	15	21	2.4	14
West Virginia	1850	1.0	31	66	0.3	37	1	0.1	39.5
North Carolina	4614	2.5	12	249	1.1	22	6	0.7	23.5
South Carolina	2407	1.3	26	54	0.2	41	0	0	46.5
Georgia	3987	2.2	16	190	0.9	26	11	1.2	18
Florida	5222	2.8	10	451	2.1	13	10	1.1	19
East South Central	12208	6.6	–	538	2.5	–	15	1.7	–
Kentucky	3076	1.7	22	151	0.7	28	4	0.4	31
Tennessee	3615	2.0	17	207	1.0	24	6	0.7	23.5
Alabama	3302	1.8	20	120	0.6	31	4	0.4	31
Mississippi	2215	1.2	29	60	0.3	39.5	1	0.1	39.5
West South Central	17266	9.3	–	977	4.5	–	35	3.9	–
Arkansas	1797	1.0	33	50	0.2	42	0	0	46.5
Louisiana	3321	1.8	19	138	0.6	30	3	0.3	35
Oklahoma	2360	1.3	28	148	0.7	29	3	0.3	35
Texas	9788	5.3	6	641	2.9	10	29	3.3	9
Mountain	7073	3.8	–	730	3.3	–	20	2.2	–
Montana	682	0.4	44	25	0.1	50	0	0	46.5
Idaho	684	0.4	43	22	0.1	51	0	0	46.5
Wyoming	338	0.2	50	38	0.2	45	0	0	46.5
Colorado	1781	1.0	34	282	1.3	19	8	0.9	21
New Mexico	983	0.5	38	75	0.3	36	4	0.4	31
Arizona	1391	0.8	36	157	0.7	27	4	0.4	31
Utah	916	0.5	39	103	0.5	33	4	0.4	31
Nevada	299	0.2	51	28	0.1	49	1	0	46.5

	U.S. Population			APA Membership			Division 14 Membership		
	Number	%	Rank	Number	%	Rank	Number	%	Rank
Pacific	21989	11.9	–	3632	16.7	–	133	14.9	–
Washington	2902	1.6	23	267	1.2	21	8	0.9	21
Oregon	1799	1.0	32	194	0.9	25	5	0.6	26.5
California	16397	8.8	2	3101	14.3	2	118	13.2	2
Alaska	234	0.1	52	8	0.1	52	0	0	46.5
Hawaii	657	0.4	45	62	0.3	38	2	0.2	37.5
Puerto Rico	2406	1.3	27	48	0.1	29	0	0	46.5

*In Thousands

EDITORIAL NOTE

One day not long ago a fledgling graduate student came into my office. Although he had been admitted in our graduate experimental psychology program, he was curious to learn something about industrial psychology, the research problems that excite industrial psychologists, and the industrial psychologist's role in, and contributions to, psychology as a behavioral science.

Before attempting to answer these questions I thought that perhaps I might orient my description of industrial psychology around the student's interests and experiences. Therefore, I asked him to tell me how he had been drawn to psychology, specifically experimental psychology, as his life's work. His response, though not unexpectedly vague, troubled me deeply, and I have no doubt that it will, similarly, disturb many other industrial psychologists.

My young friend said that what attracted him to experimental psychology was its romance, its excitement, its commitment to and involvement in significant scientifically avant-garde problems. Did he think, I asked, that experimental psychology was the only psychology in which one could find this romance and sense this excitement? For instance, I continued, what about industrial psychology? Does it do anything for you, or to you, like you say experimental psychology does?

He just didn't know, he admitted, what industrial psychology was or what industrial psychologists did. Maybe, he suggested after some deep and creative thought, industrial psychologists do personnel work and, yes, some testing, too. Whatever industrial psychology consists of, he added, he still felt that it was from Dullsville, that it didn't take much brains or ingenuity, and that it could hardly match the drama of experimental psychology, certainly not its rigor nor its vitality.

Later that evening, and for several days thereafter, I brooded about this problem, fearing to speculate on how widespread--among nonindustrial psychology graduate students at least--was the foregoing insipid perception of industrial psychology, an image hopelessly incapable of attracting good students, of commanding the respect of our colleagues, of producing research support, and of evoking the encouragement and support of academic, governmental, and industrial administrators.

To be sure, the problem is many-sided, complex, perhaps unanswerable, and maybe, to some of you, not even a problem. But it still haunted me, as perhaps it would many of you, so I began to cast about for some insights concerning those psychologists, along with their scholarly and research interests, that psychology has rewarded or honored. This endeavor, I hoped, might reveal the names of some industrial psychologists, but minimally it should tell me whose work, in the collective judgment of American psychology, was valued, and, therefore, possibly what sets of problems were viewed as romantic and emulable.

Objective criteria of eminence are hard to come by, but I tried nevertheless to intuit some guidelines for selecting the names of 10 to 20 living psychologists who had made signal contributions to psychology. These guidelines included some amorphous and loosely weighted combination of factors--citations in the literature, published works, offices held, promotion of the public welfare, and the students or other psychologists who had been inspired by these celebrated psychologists. I decided that it would be best for this list not to include industrial psychologists, but later, as you shall see, this restriction was removed, when other lists were examined.

The names I generated are these 15 living psychologists: Gordon W. Allport, E. G. Boring, Jerome S. Bruner, Leonard Carmichael, Lee J. Cronbach, Leon Festinger, Erich Fromm, J. P. Guilford, Harry F. Harlow, Harry Helson, Neal E. Miller, Charles E. Osgood, Sidney L. Pressey, Carl R. Rogers, and B. F. Skinner, representing the gamut of interests, identifications, and divisional memberships, excepting industrial psychology. This set of names could then be compared, as one genre or criterion group, with a second, industrial psychologists.

Examining the interests of these 15 psychologists, interests as gleaned from the 1964 APA Directory, though mixed with liberties I took in organizing or grouping these interests, I find there are five major clusters:

I. Learning (learning, learning theory, conditioning, college teaching)

II. Cognitive Processes (cognitive processes, language, genuis)

III. Personality (personality theory, personality, motivation and conflict)

IV. Social Processes (communication, group conflict and prejudice, opinion and attitude research, social influence, cross-cultural research, social psychology)

V. Quantitative Methods (quantitative research methods, statistics, factor analysis, psychometric methods, and psychophysical methods)

These, then are at least suggestive of the activities and problems that have concerned the foregoing 15 eminent (by my standards) nonindustrial psychologists. Let someone else be the judge as to the similarity of these activities and interests with those of industrial psychologists.

Numerous industrial psychologists do work to some degree with many of these problems, not as ends in themselves but as means to management ends, and this could well be as it should be. Moreover, I recognize that which is good (or romantic) for nonindustrial psychologists might not be good (or romantic) for industrial psychologists. I merely describe what is, at least with regard to these 15 distinguished nonindustrial psychologists. Are the problems that industrial psychologists work on as exciting, as fresh, as important--perceptually, that is, to younger people entering graduate schools--as those represented in the above five clusters? I hope so, but it wouldn't surprise me if they were not.

In an effort to "validate" my list, I sought to determine how many of these 15 nonindustrial psychologists received certain honors or awards and how many industrial psychologists received these same honors and awards. Take, first, the 27 psychologists who have received, through 1964, the APA's "Distinguished Scientific Contributions Awards." Ten of my 15 psychologists are among these 27 (Allport, Bruner, Festinger, Guilford, Harlow, Helson, Miller, Osgood, Rogers, and Skinner). None of the 27 awardees are industrial psychologists.

Since 1956 the American Psychological Foundation has designated seven recipients for its "Gold Medal Award," for a "truly distinguished contribution to the content and status of the science of psychology." Two of these seven men are on my list--Allport and Boring. Neither of these men, nor any one of the remaining five Gold Medal winners, is an industrial psychologist.

As of December 1, 1964, 25 psychologists were members of the National Academy of Sciences, six of whom (Boring, Carmichael, Guilford, Harlow, Miller, and Skinner) are among our 15 psychologists. Not one of these 25 psychologists is an industrial psychologist, although Ross Stagner, who succeeds Brent Baxter as Division 14's president, is, along with Harold H. Kelley and Roger W. Russell, a member of the Division of Behavioral Sciences of the National Research Council.

The four volumes of A History of Psychology in Autobiography contain the autobiographies of 58 psychologists, only one of whom--thank goodness for him--could clearly be thought of as an industrial psychologist, Walter VanDyke Bingham. And this reminds me, that of the 12 Bingham Memorial Lecturers (Lewis M. Terman, L. L. Thurstone--died before giving his lecture, Donald G. Paterson, Cyril Burt, Edward K. Strong, Jr., J. P. Guilford, Dael Wolfle, John M. Stalnaker, Donald W. MacKinnon, Edwin E. Ghiselli, Norman H. Mackworth, and Philip E. Vernon)--a lecture series one of whose two purposes is "to do honor to those psychologists and to those institutions contributing richly to the advancement of this branch of personnel psychology"--only two identified (or identify) themselves explicitly as industrial psychologists, Donald G. Paterson and Edwin E. Ghiselli.

Curiously, though none the less bewilderingly and sadly, the most traditional area in industrial psychology, the most documented, the most researched, the most published, and probably the most provenly successful, that is, personnel psychology, is not covered systematically in Koch's Psychology: A Study of a Science. Think of it, not even one teensy-weensy, itsy-bitsy chapter on personnel psychology in Koch! However, Koch does cover, at least implicitly, two other areas within industrial psychology--there are two chapters on engineering psychology in Volume 5, and four chapters on psychology and economic behavior (reflecting one branch of consumer psychology) in Volume 6. There are no chapters, as such, on assessment work, although there are two chapters on clinical psychology (Volume 5). Similarly, I find no systematic treatment of industrial-social psychology, although there are five chapters on social psychology (one in Volume 3, one in Volume 5, and three in Volume 6). Disappointingly, among the 89 contributors to the seven Koch volumes, only one man is a member of Division 14, Paul F. Lazarsfeld. (Six men from my list of 15 are contributors--Harlow, Helson, Miller, Osgood, Rogers, and Skinner.)

Since 1892, when G. Stanley Hall was the APA's first president, through 1965, only one APA president could possibly be thought of as an industrial psychologist, Hugo Muensterberg (president in 1898), although even he was primarily an experimentalist. (Ten of the 15 men on my list have been APA presidents. The five who have not been thus honored are Festinger, Fromm, Helson, Pressey, and Skinner.)

According to these data, then, here are the probabilities for an industrial psychologist's presence in the following categories: the APA's Distinguished Scientific Contributions Award, p = .00; the Gold Medal Award, p = .00; inclusion in History of Psychology in Autobiography, p = .02; Bingham Lecturer, p = .17; inclusion as a contributor to the seven Koch volumes, Psychology: A Study of a Science, p = .01; and president of APA, p = .01. While I do not argue that the presence of a psychologist in one or more of these categories is equivalent to his involvement in exciting, romantic, or significant research, it does seem reasonable to assume that a substantial relationship exists between the way one's research or publications are assessed by his scientific colleagues and, if you will, the research's or publication's sense of excitement and romance and its degree of importance.

To these desiderata one might respond with a shrug, commenting that the data may reflect nothing more than the inclination of some psychologists to peer down their noses imperiously at "applied" work, or it may reflect a pompous scientism cult in psychology. This may or may not be true. But in any event we like to think of ourselves as scientists, don't we? Even if we don't, or shouldn't, we simply must be concerned with attracting both intelligent, creative students and crisp, negotiable research dollars. But I very much fear that our conspicuous absence from the above honors and awards categories will likely hinder our search, and need, for good students, for research support, and for decent facilities and equipment.

There are, we all know, many fundamental remedial possibilities, but the one with which I am concerned, and responsible, is in my capacity as editor of The Industrial Psychologist. This is the principal reason I have used the space in this way for the current issue's "Editorial Note."

I am resigning as editor of TIP following this issue. My good friend and capable colleague, John R. Boulger, has generously agreed to take over as your Newsletter editor. Might

I suggest that you inundate him with papers, notes, comments, or letters, showing that my analysis and fears are superficial, specious, and without justification?

Use these pages, or a few of them anyway, for a dialogue anent this critical problem. Use these pages to demonstrate that in industrial psychology there is drama, there is romance, there is rigor, and possibly even the stuff from which scientific awards and honors might sprout.

Send John Boulger "case histories" or other kinds of reports aimed at suggesting how and where new generations of industrial psychologists might engage in a scientific love affair with, or find some romance in, industrial psychology. Certainly, the obvious constraints notwithstanding, there are numerous possibilities for this in research dealing with, among others, accident prevention, automated training and automation, autoinstructional techniques, buying behavior and consumer motivation, man-machine systems, the measurement of human performance, noise and its effect on productivity, organizational change and organizational theory, strategies for personnel decisions, validation models, the worker's environment, the nature of work, and worker motivation.

Do this, will you, and maybe, before long, Cupid's arrows will hit tenfold the bull's-eyes than is now the case, thereby enhancing industrial psychology's image among promising young people contemplating advanced study and research in psychology graduate programs across the land.

Robert Perloff

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*Deceased, June 13.