

Seven Interfaces issues ago (November, 1973), I reviewed in this column some then current psychological issues, and discussed their implications for management science. In preparation for this column, I independently reviewed some issues discussed in *The Industrial-Organizational Psychologist*, which is sent quarterly to all those affiliated with that Division of APA. Later, after deciding to summarize three areas of discussion in this column, I looked back to 1973. Perhaps it is not surprising, but the issues were the same!

## I. The Meaning of Work and Work Productivity

Raymond A. Katzell, a senior N.Y.U. professor, and former president of the industrial-organizational psychologists, has been leading (and, he reports, being led by) a "multi-disciplinary team" in an evaluation of policy-related research on productivity and job satisfaction. This activity is supported by the Research Related to National Needs program of NSF. The upcoming report on the project will condemn "single-target" programs, such as one-shot job enrichment activities, or increased participation in decision-making or incentive pay plans, as unlikely to generate enduring increases in *both* job satisfaction and performance (Katzell, 1975).

Instead, the report will suggest more comprehensive programs which can attack systematically a number of problem areas, and therefore increase the probability of long-term satisfaction and productivity gains. These major problem areas should include: a) a better matching of worker aptitudes and motivations with job designs, b) a linking of appropriate expectations of pay as a function of performance, c) an appropriate job challenge and feeling of individual contribution, relative to the workers' motivation and ability, and d) giving all levels of personnel a "say" in decisions affecting their jobs and

Copyright © 1975, The Institute of Management Sciences

working lives. Incidently, for a typical (but alas, nondata oriented) case study involving such a systematic approach to the restructuring of work and production facilities, the reader is referred to the March, 1975, *Scientific American*.

Unfortunately, this report of a four-year "experiment" in a Swedish factory is typical of many such reports which have appeared in American and British journals in the field of organizational research during the last ten years. Why *Scientific American* decided to publish one such example now (implying that it is an advance in the field) mystifies me, since its research technique is old-hat. However, its appearance does demonstrate that current high-level concern with this problem exists far beyond industrial psychology, sociology, and behavioral science in general. Therefore, such attention from other scientific disciplines might ultimately improve the research climate, and increase future acceptance by industry and government of more systematic solutions of the kind the Katzell group intends to propose. Perhaps the attention *Scientific American* gives a Swedish experiment is another example of the American conception that anything happening in Sweden is bound to be sexier than the same event occurring anywhere else!

# II. Organizational Assessment: Human Resource Accounting

Reporting on a symposium at last year's annual meetings of the psychology association, Sashkin (1974) states that "as of yet, human resource accounting was seen as not very workable." Perhaps this is due to measurement difficulties, or even more basic problems with operational definitions and defining models. On the other hand, Sashkin feels that there "have been significant developments in the field," but they have been ignored.

Speaking to this point, a letter was printed in the following issue from Mark Frohman, of the R. G. Barry Corporation, supposedly a pioneer in human resource accounting techniques. Frohman states that HRA serves his firm as an information subsystem which "aids in decision-making, monitoring organizational resources, and providing feedback to managers." He goes on to indicate that "specific areas in which we are working include accounting for factory turnover and management turnover, accounting for participation in development activities, integrating turnover costs and training investments in manufacturing statements, analyzing and improving the cost-effectiveness of joining-up activities, e.g. hiring and orienting new people."

It is very instructive to compare the academic norm of analytical cynicism, as reported by Sashkin, with the working need of a management analyst to put functional ideas, even if not fully developed, into practice. The notion that corporate balance sheets should contain rigorously developed measures of investment and output of "human" resources, which otherwise might go unreported and misunderstood, is a perfectly rational one. It is quite idealistic to currently consider using large-scale HRA systems when measures are inadequately modeled, and data collection technique is still primitive. However, it can be very practical to use some HRA notions on a carefully limited setting for clearly defined functional objectives, as Frohman has stated. Must the progress of management science come from the development of big picture macro-systematic solutions to important problems, or can it also develop effectively inductively from some limited but useful models?

### III. Equal Employment Opportunity

The Civil Rights Division of the U. S. Department of Justice has been, for the past few years, attempting to develop uniform Guidelines on Employee Selection Procedures. The results of this attempt provide a very instructive lesson for any professional group (for example, financial analysts, accountants, information systems specialists) who might find themselves required to respond to proposed federal regulations governing their work. All indications are that the development of selection guidelines might take two or more years of additional work, and that they might result in highly idealized, unworkable standards, which would often be violated in spirit, despite superficial compliance (Fleishman, 1974).

Equally troubling is a second, unintended consequence of regulation, the discouraging of new research and improved technology that is designed to remedy the abuses in employment selection which led to the creation of the regulatory law in the first place. Courts have ruled that the validity of *paper and pencil tests* must be demonstrated by the employer separately for all applicant groups (black, white, men, women) and the Justice Department has proposed regulations which specify the methods of validity determination. However, a company might decide to hire some consulting psychologists to screen potential job applicants on the basis of "personality fit," using an individually administered and interpreted projective device, such as the Rorschach ink-blot cards.

Such an "interview" might not fall under the proposed regulations! A formalized set of written questions in a personality inventory would, but at least its impact could be assessed since it is scorable and may potentially be related to a measured job performance criterion. Thus, an employer who wishes, for whatever reason, (potential prejudice, paternalistic nosiness, or just plain ignorance) to avoid a formal evaluation of his procedures could be encouraged to select employees with the interview, on a less scientific basis.

The slow development of these employment guidelines has occurred despite intensive efforts by the industrial-organizational psychologists to cooperate with the Justice Department, since by far, the prevailing orientation of this group is scientific and quantitative, as opposed to intuitive. The latest indication from these psychologists is that they'll have their own guidelines published two years before those of the Justice Department.

#### IV. Hawthorne (Really) Revisted!

With apologies to Landsberger, whose fine review of the influence of the Hawthorne research uses this title, I wish to report the celebration of an important anniversary which is of great potential interest to those outside the field of organizational behavior, as well as those inside it. Fifty years ago, at a Chicago factory of Western Electric, some changed light bulbs began one of the most influential projects ever undertaken by social scientists, the Hawthorne studies. This attempt to relate illumination levels to employee performance, while rightfully criticized on many grounds, still provides some classic data on employee perceptions, work group behavior, and many other topics. To mark the anniversary, Harvard Business School and Western Electric sponsored a two and a half day symposium involving a panel of leading organizational behavior researchers and consultants. The topics covered included just about the entire field of organizational studies, and the proceedings, including questions and answers were recorded for publication (Patinka, 1974).

Despite my feeling that too many texts, students, and especially some colleagues, spend undue time trying to decipher the nine-year data of Haw-

INTERFACES August 1975

thorne, when attention to more recent, better controlled research might be more appropriate, I must point out that the studies were important examples of the kind of industry-professional cooperation which is urgently needed by management science today. We must develop and publicize already developed *long-term* projects which demonstrate the utility of management science technique and theory for high-level organizational concerns. In this effort, we must demonstrate a willingness to deal with a difficult tradeoff, as was done at Hawthorne 50 years ago, the possible sacrificing of some theoretical rigor for a better coordination with management goals.

#### References

Bjork, Lars, "An experiment in work satisfaction," Scientific American, 232 (3), pp. 17-23. Fleishman, E. A., "Outgoing President's Message," The Industrial-Organizational Psychologist (TIP), 12 (1), 1974, pp. 15-17. Katzell, R. A., "Work, productivity and job satisfaction", TIP, 12 (2), 1975, p. 24. Patinka, P., "Was it really that long ago?", TIP, 12 (1), 1974, p. 19. Sashkin, M., "Reflections on the 1974 program," TIP, 12 (1), 1974, pp. 31-35.

Comments, suggestions, letters, and any specific contributions for future installments of this column are welcome. Please send them to Professor Daniel N. Braunstein, School of Economics and Management, Oakland University, Rochester, Michigan 48063. Copyright 1975, by INFORMS, all rights reserved. Copyright of Interfaces is the property of INFORMS: Institute for Operations Research and its content may not be copied or emailed to multiple sites or posted to a listserv without the copyright holder's express written permission. However, users may print, download, or email articles for individual use.