

when a neurotic person loves, for example, it is a different kind of love than when a healthy person loves even though the emotion of love remains the same. The implications of this view precludes the conception of neurosis as a rotten part of a healthy apple . . . a plant that can be pulled out by the roots without disturbing or changing the rest of the personality. The neurotic person is neurotic throughout, in every area of his life, in all the crannies and crevices of his existence" (p. 103). This is a revolutionary conception with which not all psychologists may agree but to me it has the ring of truth.

Neurosis and Treatment is indeed a "jewel of a book" as Abe Maslow says in the appreciative foreword. It is a fitting testament of an important figure in modern psychology.

Old Dogs Sometimes Learn New Tricks!

Jack Botwinick

Cognitive Processes in Maturity and Old Age. New York: Springer, 1967. Pp. x + 212. \$5.75.

Reviewed by K. WARNER SCHAIK

The author, Jack Botwinick, received his PhD in 1953 from New York University and spent the decade thereafter as a research psychologist in the intramural research program on aging at NIMH. In 1963 he joined the group of researchers interested in aging forming around Ewald Busse at Duke University Medical Center, where he is now Professor of Medical Psychology, in the Department of Psychiatry, with an NIH career investigator appointment.

The reviewer, K. Warner Schaie, is Professor and Chairman, Department of Psychology, West Virginia University. His 1956 PhD is from the University of Washington. He spent a postdoctoral year at Washington University Medical

School and then taught at the University of Nebraska. Research interests are in the area of personality assessment and age changes in cognitive behavior. He is author of *Color and Personality* and editor of *Theory and Methods of Research on Aging*.

PROBABLY few other people have more singlemindedly devoted themselves to the study of the acquisition and retention of cognitive behaviors in old age than the author of this slim but authoritative volume. One must therefore examine with care the arguments that lead up to Botwinick's final conclusion that "Few sections in this book provide comfort to those of us who are elderly or plan to become so" since "the general trend in cognitive functioning is downhill and it would be foolhardy to ignore this."

The author's position is clearly that of accepting the prevalence of global decrement as an inevitable by-product of normal aging. His book is in many ways an historical account of and an attempt at debunking the many studies that attempt to show that age decrement in cognitive function can be accounted for as an artifact of sampling or that it may be attributed to non-cognitive, neurophysiological, or motivational variables. No one would argue that psychological decrement must, at the end of life, be an inevitable concomitant of physiological dysfunction. Nevertheless, there remains the question whether much of the decrement seen during the later years may not indeed be due to experimental artifacts. Botwinick's point of view may be particularly glum because most of his evidence comes from the cross-sectional studies on age differences that have heretofore dominated gerontological research.

Botwinick deals with the broad topic of cognition by attending to the subheadings of intelligence, learning, memory, and complex processes. About half the volume is devoted to the discussion of aging phenomena in learning and memory and, since it refers to the author's primary area of expertise, contains his most persuasive account. Botwinick maintains the continued utility of analyzing learning and memory separately, differing here with Kay's recent

position that it might be more useful with aged populations to consider learning as a sub-set of the psychology of forgetting. Much attention is given to a discussion of the interaction effects of speed and learning deficit. The author finds it difficult to marshal clear evidence for specific learning deficit, (indeed, under certain conditions the old learn every bit as well as the young) but he demonstrates clearly inescapable trends towards performance deficits with advancing old age.

THE DISCUSSION of age changes in intelligence and complex behavior is much less satisfactory than the treatment of learning. One fears that the author has not paid close enough attention to recent methodological issues and multivariate data. For example, allusion is made to the differential decline of intelligence and the cross-sectional data that suggest that verbal ability and stored information show little decline with age. But no critical examination is made to consider the possibility that these findings may be an artifact of the mode of analysis. Botwinick hints at the discrepancies between the many cross-sectional studies reflecting age differences and the longitudinal studies assessing age changes within populations of individuals belonging to the same generation. He ignores, however, recently available models that permit analysis of these discrepancies and that, moreover, suggest that the steep decrement gradients shown in tests of reasoning and spatial ability may be no more than a function of increasing competence in successive generations, while the stable verbal gradients may conceal decrement in response availability of verbal material in successive samples.

In summary, Botwinick shows that there is ample evidence to demonstrate loss in speed and performance with age. But when it comes to deficit in learning, intelligence, and complex performance, he uncovers such a host of faulty research methods and artifacts that this reviewer does not see how we can yet reach definitive conclusions on the presence or absence of age decrement. No student of the psychology of aging can afford to miss this concise and well

written volume, but its message (the author's conclusions notwithstanding) would seem to be that old dogs, and researchers, one hopes, *sometimes* can learn new tricks!

The Ubiquitous Small Group

Joseph E. McGrath and Irwin Altman

Small Group Research: A Synthesis and Critique of the Field. New York: Holt, Rinehart & Winston, 1966. Pp. ix + 601. \$12.50.

Reviewed by BERTRAM H. RAVEN

The first author, Joseph E. McGrath, received his PhD from the University of Michigan, and after a varied career—with Human Resources Research, Inc. and with Psychological Research Associates, is now on the faculty of the Psychology Department at the University of Illinois. The second author, Irwin Altman, a University of Maryland PhD, has been with Human Sciences Research, Inc., and has taught at American University. Currently he is Research Psychologist, Naval Medical Research Institute, Bethesda.

The reviewer, Bertram H. Raven, received his PhD in social psychology from the University of Michigan. He is now Professor in the Department of Psychology, UCLA. He spent a year as a Guggenheim Fellow at the Hebrew University in Jerusalem and a Fulbright year at the University of Nijmegen, Netherlands. His research interests are in the social influence processes in the small group and he also maintains a bibliography of small group research. He is author of the forthcoming *Interpersonal Relations and Behavior in Groups* and has contributed to both the

Handbook of Social Psychology and International Encyclopedia of the Social Sciences.

“ . . . IF we continue to generate studies at even the present rate, without a major ‘leap forward’ in terms of integrative theory, we shall drown in our own data [p. 9].” In response to this conviction, McGrath and Altman have prepared *Small Group Research*, representing the results of eight years of work aimed at developing a method of classifying scientific knowledge, integrating research in the small group field, and maintenance of a vehicle for the absorption and integration of new material. The necessity for such a project is nowhere better demonstrated than in their bibliography, an exhaustive (and nearly exhausting) list of 2,699 items, nine-tenths of which appeared in the last decade of their analysis. With new articles and books appearing at an exponential rate, this reviewer's file now includes over 5,000 items relating to small group behavior.

It is a reflection of the state of the field that the authors found it necessary to limit their review to a *representative sample of 250 research articles* on small groups. Nearly half of the book is devoted to detailed summaries of these 250 studies. Imagine reporting to our students: “A *representative sample* of research papers indicates that ‘the higher a member's military rank, the more frequently he was chosen as a desirable personal friend or companion.’ Five of six such studies found a significant relationship at the .05 level” (p. 135). We have come to the point where, rather than presenting results from a representative sample of persons, we deal with results from a representative sample of studies! McGrath and Altman also indicate the degree of relationship after each finding that presents some problems—if two studies in the sample examined the relationship and both found significance, then the relationship was considered as “highly related.” In all fairness, it should be remembered that the authors present this volume as an example of what could be done and apparently hope that someone else will pick up where they left off and do a similar analysis for all of the small

group literature. The enormous amount of coding time necessary for such a total analysis leaves some doubt forever as to whether this will be accomplished.

OF particular importance to the methodology of small group research, the authors' analysis of methodological factors contributing to significant research results. Examining their representative sample of studies, they consider the parameters of both the antecedent and resultant of the relationship. Roughly, the independent and dependent variables. Each can be examined according to six parameters: (1) Object of analysis (member, group, or external situation), (2) Mode (static description or action), (3) Task (pure description or evaluative), (4) Relative or Involvement, (5) Source of datum (member, group, or external), (6) Viewpoint (subjective, projective, or objective). The analysis of research findings indicates support for a concordance hypothesis: the greater the correspondence of independent and dependent variables for each of the parameters, the greater the likelihood of a significant relationship. Practical implications for a researcher: If one wants to increase the probability of significance of relationship between communication and attraction, select your study so that you maximize concordance. That is, have members of both variables (same source) for themselves (same object), in absolute terms (same relativity), descriptively (same task), and subjectively (same viewpoint), as an active process (same mode). Of course, the significant results that obtain will then appear to be more trivial than those that are less concordant in parameters. The occasional finding that finds significance with low concordance then becomes particularly impressive. In this way, McGrath and Altman provide us with an especially useful tool for evaluating the implications of the results of research, over and over mere statistical significance.



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