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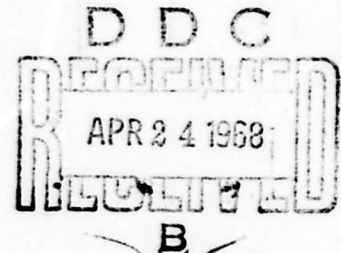
PRACTICABLE MODELS IN PERSONALITY RESEARCH

Report to Dr. Victor Fields, Head of the Personnel and Training Division,
Psychological Sciences Division, Office of Naval Research,
Washington, D.C. 20360.

By Research Professor Raymond B. Cattell, Department of Psychology,
University of Illinois, Urbana, Illinois, 61820.

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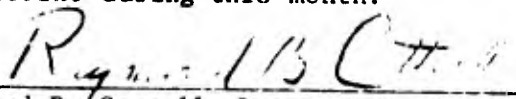
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1. Final Status Report

The basis for choice of participants and areas of contribution has been described in earlier status reports. The tentative program sent out to the twenty-five initially invited participants and the final arrangements for the conference on December 7, 1967, were described in the Report of November 1, 1967.

Despite bad traveling weather the conference took place on schedule, with all participants present, beginning at 9:00 a.m. on Thursday, December 7, 1967, at the University of Illinois's special conference house at Allerton Park. The housing, automobile and restaurant arrangements made by Mrs. Deborah Skehen, who has continuously been secretary to the conference, worked excellently, as also did the machinery in the conference itself. Both the main 20 out-of-town participants (including three from abroad) and the local University of Illinois invited graduate students and faculty, expressed deep satisfaction with the quality of the papers and the liveliness of the discussion. The charming surroundings, and remoteness from the noise of a large city, favored continuing discussions in small groups after the main meeting period. One of the two evenings was a social evening with University of Illinois Psychology Department faculty.

Revised copies of papers have been received from most participants since the meeting. The technical report was written during January, 1968, but since accounts cannot be processed finally until later, the status, the technical and the accounts reports are being sent in simultaneously at the end of February, the local ONR representative, Dr. F. X. Finnegan, having arranged extension of clerical and office expense charges from the account during this month.


Raymond B. Cattell, Research Professor

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2. Final Technical Report*on

Practical Models in Personality Research

Conference held at Allerton Park, University of Illinois, December 7, 8 & 9, 1967.

by

Raymond B. Cattell

Participants

Local: Dr. S. Bijou
Dr. R. B. Cattell, Director of Laboratory of Personality Analysis,
University of Illinois

Dr. G. Clore
Dr. K. Delhees, Chief Assistant in organizing the conference
Dr. L. Humphreys, Head of Department, University of Illinois
Dr. K. Schneewind
Dr. L. Tucker
Dr. F. Weizmann
Dr. G. Wiggins
Dr. N. Wiggins

And twelve graduate students in psychology.

Non-Local: Dr. Gordon Bechtel, Oregon Research Institute, Eugene, Oregon
Dr. W. Grant Dahlstrom, Research Laboratories, The Menninger
Foundation, Topeka, Kansas
Dr. Ralph Dreger, Louisiana State University, Baton Rouge, Louisiana
Dr. J. Fahrenberg, University of Freiburg, Institute of Psychology,
Freiburg, West Germany
Dr. Donald Fiske, University of Chicago, Chicago, Illinois
Dr. Larry Goulet, West Virginia University, Morgantown, West Virginia
Dr. Jeffery A. Gray, Institute of Experimental Psychology, University
of Oxford, Oxford, England
Dr. W. H. Guertin, University of Florida, Gainesville, Florida
Dr. John Horn, University of Denver, Denver, Colorado
Dr. John Hundleby, New York University, New York, New York
Dr. Akira Ishikawa, University of Kansai, Japan
Dr. Carroll Izard, Vanderbilt University, Nashville, Tennessee
Dr. John Loehlin, University of Texas, Austin, Texas

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Dr. Robert Lushene, Florida State University, Tallahassee, Florida
Dr. John Nesselrode, West Virginia University, Morgantown,
West Virginia
Dr. L. G. Rorer, University of California, Berkeley, California
Dr. Charles Spielberger, Florida State University, Tallahassee,
Florida
Dr. Arthur B. Sweney, Texas Technical College, Lubbock, Texas
Dr. Charles Truax, University of Arkansas, Fayetteville, Arkansas
Dr. G. J. S. Wilde, Queens University, Kingston, Ontario, Canada

Proceedings

Since it was agreed at the conference that Professor Cattell would take steps to arrange for publication of the papers in book form, within a year or so, it is not planned to attempt presentation of the as yet unedited papers here. A brief resume of each paper will be given, and a brief comment on the nature of the discussion.

Thursday, December 7, 1967

After the opening welcome by Professor Humphreys, the introductory paper was given by PROFESSOR CATTELL on the topic:

THE NATURE OF MODELS IN PERSONALITY THEORY

Herein it was pointed out that personality theory had "turned the corner" since the first phase of mainly clinical sources and that it had now begun to build up hypotheses on its own quantitative findings as an experimental science. Attention was given to defining a model and to describing some main dimensions of theory construction. The relation of these to dimensions of experimental design was emphasized, when models are concerned. Desirable theory was defined as theory permitting translation into a precise model, which need not, however, be mathematical.

In the search for models which will fit experimental data, there is no royal road. Models of all kinds need to be tried, though model building might become a vice if pursued for its own sake, and it was argued that the most promising models are those derived from a close study of the data in an inductive-hypothetical-deductive process.

The nearest thing to a universal model is the factor specification equation, though not necessarily restricted to factors as the terms in the equation. That is to say, a model which consists of a linear additive first order equation is a reasonable first approximation to a great deal of lawful generalization already visible.

The primary problem in personality theory at the present time was argued to be that of integrating personality theory with learning theory. This, however, did not mean bridging from personality theory to existing learning theory, which was largely reflexological and atomistic. Personality research might itself be the source of new developments in learning theory which is more wholistic. A model of adaptation process analysis was presented which analyzes learning in terms of changes in structures already recognized in personality theory rather than in atomistic bits of behavior. A model for "modulation theory" was presented which proposes that the situation be regarded as modifying levels on particular personality factors as a function of the situation and of the previous personality factor profile of the individual.

The discussion turned mainly on the "attack" which the speaker seemed to have made on classical reflexological learning theory, and there were attempts to show that concepts in the two systems were entirely reconcilable.

After the break, the next speaker was PROFESSOR JOHN LOEHLIN on the topic:

MODELS OF INTERACTION OF HEREDITY AND ENVIRONMENT IN PERSONALITY

Dr. Loehlin, who has written some of the basic papers in recent work on the study of behavioral genetics, started by referring to the traditional approach to twin studies, comparing this with the MAVA method, and then proceeding to a design which he and Dr. Vandenberg has ingeniously applied in recent years. This design consists in factoring the differences between identical twins and the differences between fraternal twins separately, on the same set of variables. The argument is that the set of factors from the fraternal twins should be larger than the set between the identical twins, since the dimensionality is augmented by factors which arise from the genetic differences of the fraternal twins.

Dr. Loehlin presented a table of heritability coefficients from personality inventory studies of identical and fraternal twins, derived from Thurstone, Cattell, the MMPI, Eysenck's work, Comrey, the talent study, and various others. His conclusion was that as yet the central tendencies were not too clear, and that there was greater variability among the results than would be expected from well conducted experiments.

After the adjournment for lunch, PROFESSOR G. J. S. WILDE, of Queens University, Ontario, opened up with:

MODELS IN HANDLING RATING AND SELF RATING DATA

This paper dealt with the results of factor analysis of the questionnaire domain, by Guilford, Cattell, Eysenck, and others and directed attention particularly to the question of motivational distortion by social desirability, etc. The speaker evaluated these distortions from several points of view, and also

introduced some novel treatment in what he called "the error choice principle". Showing that there are individual differences in the mode of extremity response which affect the whole outcome.

In the subsequent discussion, the feeling was expressed that he had dwelt too much on the distortions and fallacies in the questionnaire realm, and not enough on solid concurrence of research findings in regard to twelve to twenty primary factors, which can be related to primary factors in the rating field.

The paper by PROFESSOR GORDON BECHTEL of the Oregon Research Institute was entitled:

ENCOMPASSING THE SITUATION IN THE PERSONALITY MODEL

In this he stressed the fact, well known to all present, that quantitative and experimental approaches to the situation and the environment in personality work were much neglected, and that even many theoretical formulations of personality did not include proper terms for the situation and the stimulus. Dr. Bechtel took as his central subject the single individual inside you, and he concerned himself with defining intra-individual traits. Having done that, he proceeded to consider their situational determinants. He used the concept of global and focal stimuli, recognizing that he had to deal with the individual's evaluation of focal stimuli embedded in varying situational backgrounds. He then proceeded to apply a strict model to operant response, characterized by different emission rates, which covary over occasions within a single person. He illustrated this with a sociometric model directed to a quantitative characterization of the individual in small group situations.

The discussion on Dr. Bechtel's paper was tentative, since the complexity and refinement of the model he had put forward evidently required more considera-

tion by most people before they felt confident to evaluate it. However, Dr. Cattell suggested that the behavioral indices, or loadings, in the specification equation, were one clear-cut way of putting the situation into relation with personality and that Dr. Bechtel's presentation was in the end compatible with this.

Friday, December 8, 1967

The second day of the Conference began with the paper at 9:00 a.m. by PROFESSOR CHARLES SPIELBERGER of Florida State University who presented a paper on:

THEORIES OF ANXIETY

Professor Spielberger referred to the various researches covered in his recently finished symposium on anxiety, noting the difficulties in reaching a definition. He remarked that though he had not been brought up with factor analytic techniques, he considered the approach by Cattell and Scheier, through factor analysis, to have given a reasonably stable operational definition to anxiety. However, he pointed out that the important thing today is the distinction between anxiety as a state and anxiety as a trait. One had to recognize that quite apart from the present level of anxiety on some accepted measure of anxiety, individuals might differ a great deal in variability of anxiety level in response to stimuli. He gave experimental instances of this variability, and raised the question as to whether what we mean by anxiety might not be this variability.

Professor Spielberger's paper excited a good deal of comment, and there was some general development in the discussion towards clearer concepts of what variability would imply psychometrically. Nesselroade raised the question

of whether a person who had high variability would generally be found to be at a higher level on the state factor in any random set of situations. Cattell raised the question of what the mean of a state measurement might be and whether individuals should be considered to stand at a different mean on the state of anxiety itself, or whether the central tendency should be considered the same for all. Several speakers implied that high variability was not anxiety but rather indicated ego weakness or some kind of emotional instability not to be confused with anxiety.

The second paper of the morning was given by PROFESSOR JOHN HUNDLEBY of New York University on:

MODELS OF STRUCTURE EMERGING FROM OBJECTIVE PERSONALITY TESTS

Dr. Hundleby began by defining an objective test as one in which the subject does not make a self evaluation as in a questionnaire, but acts in a prescribed situation and has his behavior measured. He reminded the audience that there had been an enormous development in the invention of such objective tests which had apparently had not been fully realized by those who were doing research in the field. He then proceeded to show how factor analyses of as many as ten different and large samples of children, and as many as twenty different samples of adults had converged on certain concepts. He enumerated some twenty personality factors now considered replicated, and dwelt on the meaning of two or three of them.

After this, he pointed to certain experimental difficulties and theoretical uncertainties in the findings. There was, first, the fact that factor matching indices were still not sufficiently developed to give a significance level in the matching of a factor. He pointed out that theoretically, except for three

or four factors so far clearly identified, we knew little about the general nature of the influences which caused factor patterns.

The discussion was brief, since most of those present evidently regarded the paper as a very capable summary of our present knowledge in this field, but there were some protests that he had been over critical and over tentative in drawing his conclusions. For example, Dr. Sweney pointed out that several of the factors could be recognized also in P-technique analyses and they were therefore not merely inter-individual difference factors, but had a functional unity in a wider sense. Dr. Hundleby replied that there might be difficulty in distinguishing between the change on a trait, and the existence of a pure state factor.

After lunch the group reconvened in the Oak Room, its numbers expanded by a gallery of graduate students and some faculty from the University of Illinois. PROFESSOR J. FAHRENBERG, of the University of Freiburg, Germany, opened the session with a paper on:

CONCEPTS OF PHYSIOLOGICAL AND PSYCHOLOGICAL INTERACTION

The speaker began by pointing out that the biological basis of personality can be studied by three different points of view: neurophysiological, behavioral psychophysiological, and genetic. He pointed out that considerable progress had been made in recent years on these three lines of approach, but that in respect to their implications for personality, there was a lack of integration.

From this point on he proceeded to a very scholarly organization of the progress made within each field. In neurophysiology he dealt with the reticular and limbic systems, dealing with the many findings on stimulation and drug experiments. He also traced the development of stress reaction concepts from Cannon to Selye.

In behavioral psychophysiological observations he criticized the many unidimensional concepts that have not been established to be unidimensional, and particularly dealt with Eppinger and Hess's sympatheticotonia vs. parasympatheticotonia. He also mentioned Wetzler and Losse dealing with human resting levels in autonomic functioning, and the significance of the difference therein from person to person. He pointed out the value of factor analytic approaches and particularly P-technique, which had in general led to a better and more integrative choice of physiological variables across researches.

Finally he dealt with contributions from constitutional research and behavior genetics, commenting particularly on the recent summaries by Fuller and Thompson.

The discussion following this paper was carried on by half a dozen people with personal experience in research in the physiological area, and turned very much on the points which Fahrenberg had made. Namely, the lack of coordination in choice of variables, and the often unjustified assumptions of unitary action and unitary concepts of underlying neurological or enzymatic influences.

The following paper was by PROFESSOR GRANT DAHLSTROM, presently located at the Menninger Foundation, who spoke on:

THE TYPE CONCEPT IN PSYCHOPATHOLOGY

With many humorous asides, Dr. Dahlstrom dwelt on the confusion which had obtained in psychopathology until recent years and admitted that a vote by the American Psychiatric Association was still the only real basis for the agreed taxonomic and diagnostic schema. He spent some time on the historical development of the MMPI, pointing out, however, that the scale structure still corresponded to no single principle easily definable in a mathematical model.

He then proceeded in very penetrating fashion, to ask what the requirements of a mathematical model would be, dealing with correlation clusters, discriminant functions, and the two concepts of homostat and segregate in the present taxonome computer program for sorting cases. His position seemed to be that some real progress had still to be made in any application of a definite model to psychopathological data.

The discussion, by Dr. Guertin and others, turned on the way in which the model could be set up. The general impression was, that although a few pioneer efforts had been made, using the distance function, the pattern similarity coefficient, and the taxonome program, a problem still resided in the fact that the bulk of people practicing in the field were unaware of these refinements.

The concluding paper for the afternoon was by PROFESSOR JOHN R. NESSELROADE of the University of West Virginia on:

A MODEL FOR PSYCHOLOGICAL STATES, MOODS AND ROLE SETS

The paper began by pointing out that states, moods and roles could all be studied under the concept of temporary psychological states requiring an understanding of handling of change scores. The speaker then went on to describe the use of multivariate methods in structuring change by such intra-individual methods as P-technique and by dR technique. Dr. Nesselroade said there was a certain amount of confusion because of the failure to distinguish between constancy of pattern and constancy of level. He then covered the board with matrix multiplication formulae designed to show the relation of the state change factors to trait factors in any two successive sets of measurements. This was worked out very clearly and answered certain questions which had arisen earlier in the day in Dr. Spielberger's paper. Finally the speaker went on to some

substantive findings, pointing out that anxiety and stress as states were first recognized through P-technique as separate factors, and that this had cleared up much of the contradiction in findings among various people studying anxiety and stress.

The discussion was a brisk one, except on the central matrix formulae, which the group evidently felt it needed some time to digest. However, Professor Tucker from the gallery commented on these equations and said that in his opinion they were fundamentally correct. It was commented upon by Professor Wilde that if this methodology was as powerful as it seemed, a wonderful avenue had been opened up to the study of emotions and psychological states, and that the next decade might see considerable progress there if the methods were properly applied. Other speakers brought the questions around specifically to the definition of anxiety as a state, and the earlier, less formulated discussions of that problem following Dr. Spielberger's paper in the morning.

Saturday, December 9, 1967

The meeting was opened at 9:00 a.m. by a paper from PROFESSOR CARROLL IZARD of Vanderbilt University on:

MODELS AND METHODS FOR INVESTIGATING PERSONALITY AND CULTURE

Professor Izard's paper did not attack the most general issues in personality and culture, but concentrated on the question of the expression of emotion in various cultures, since, as he pointed out, he had appreciable personal data on this, and it presented sufficient grounds for methodological discussion without entering the larger field.

Much of the data came from Professor Izard's own cross-cultural studies during his recent sabbatical year, and was concerned with the interpretation of

pictures of emotional expression applied to groups of children in different countries. He pointed out that success with natural expressions of emotion was meager and that he had obtained actors to portray emotions on the stage. Quite significant differences were found between various racial and cultural groups in their interpretation of particular emotions and their ability to recognize emotions correctly.

The paper was subjected to an appreciative but critical discussion. First, there were questions regarding the emotions having been portrayed in the way indicated, and several people felt that the expressions should be taken from spontaneous natural occurrences rather than actors' conventional expressions. Also, it was felt that they should have been depicted by Mongolian and other racial and cultural groups, so that the score could be evaluated in both directions. At a more conceptual level, some exception was taken to Professor Izard referring to the emotions as the sources of motivation. Harking back to the James-Lange theory two or three objectors pointed out that emotion is better considered as a by-product of a motivational process rather than as motivation in itself. However, Dr. Sweney pointed out that the categories of emotion which Dr. Izard had used, corresponded well to the ergic patterns found by factor analysis of motivation work. Professor Izard agreed that it might be desirable to correlate these various expressions of emotion in order to arrive more objectively at the categories of central expression for experiments of the kind which he was conducting.

Appropriately, PROFESSOR A. B. SWENEY, of Texas Technical College, followed Professor Izard's paper with one entitled:

CONCEPTS AND MODELS IN MOTIVATION RESEARCH

In this paper Professor Sweney said that he was going to deal only with models deriving from the use of objective devices in the measurement of motivation and interest strength, since the conscious checklist approach obviously left out a great deal of unconscious motivation and was much biased by the subject's misapprehensions of the strength of his own interests. Professor Sweney then dealt with the difference between the factoring of many measures of motivation strength on one attitude, yielding motivational components, and the factoring of many different attitudes, all using the same battery of component measures, which yielded dynamic structure factors. He distributed a number of diagrams showing the different correlational approaches, and these two main concepts -- motivational components and dynamic structure factors -- which emerge from them.

After that he proceeded to set the substantive findings of a number of researches side by side bringing out the best objective test measures for various motivational components and the best attitude measures for the various dynamic structure factors. For example, he showed that the ego or reality directed component of interest seemed to load positively on information about the topic, the speed of learning a new language in connection with it, certain physiological signs, such as systolic blood pressure when reacting to stimuli, and speed of perceptual integration in relation to incomplete words in a given area. Similarly, he showed that the sex in adults and in children shows a consistent pattern within different studies of the former and has a consistent pattern within different studies of the latter, but significant differences between the two. For example, "I like sexual attractiveness in a woman" and "I like to see a good movie on a love scene" consistently load the adult factor. On the other hand, at the adolescent level, he found "I want to

spend time with a girl friend," "I want to go to parties with couples," and "I think about marriage".

Dr. Sweney maintained that the measurement of ergic tension levels for defined ergs had shown that much of the speculation along the lines of Murray's, McDougall's, Freud's and McClelland's classification of drives or needs was artificial and unfounded. He pointed out, for example, that the need for achievement falls into two quite distinct factors, with a third operating in certain areas. He then proceeded to set out a list of many attitudes showing their breakdown into particular sources of motivation, as an average for the general population. This approach he believes should now be pursued into the study of higher order factors among the primaries, and also into the study of conflict situations.

The very completeness and explicitness of Professor Sweney's paper seemed at first to leave little for discussion except that a number of questions arose on the symbolism and diagrammatic representation in his handout. However, it quickly became evident that not all participants had grasped the distinction he had made between motivational components and dynamic structure factors, and it was necessary for him to go over this in some detail, with illustrations, to bring out the points. Professor Horn, whose own work in this area, has been sustained and outstanding, raised the question, however, as to whether there might also be interaction between the devices of measurement, in the objective domain, and the subject content, as in the dynamic structure domain. Dr. Cattell intervened to say that systematic researches in this direction were now in progress by Dr. Karl Delhees at the University of Illinois. Dr. Hundleby raised the question of the consideration of certain factors, notably the super ego factor,

to certain patterns which he had already set out in the handout in connection with his own paper, on the personality factors of high school children and their relation to attainment, institutional behavior, achievement, etc. Professor Sweney replied that as far as the prediction of achievement is concerned, it had already been demonstrated in two studies with substantial samples, that the contribution from motivation strength measurements was something additional to personality factor measurements and that it contributed as strongly as the personality measures to the prediction of the achievement criterion. Professor Sweney also took the opportunity to indicate how these dynamic structures could be used in the clinical study of conflict, and cited a paper already published which was very suggestive in this direction.

The concluding paper was one by PROFESSOR C. B. TRUAX of the University of Arkansas on:

LEARNING THEORY AND PERSONALITY

As was appropriate for a concluding paper, this contribution ranged widely across several fields and performed a valuable integrative function. A number of basic viewpoints were stated, such as that the interpersonal needs or rewards or reinforcers are biologically and genetically determined, and as such are primary rather than learned. The speaker also drew a contrast between molar and molecular learning theory, and then launched into a number of substantial studies, which had apparently not previously been organized together. In the first place there were studies of school learning and of the teacher-child relationship. Secondly, there were studies of parent-child relationships and the effects of parents upon the education of the child. Thirdly, there were studies of small groups and of friendship processes.

The speaker constantly related these substantive findings to general learning principles and particularly to the idea of internal reward from certain actions.

The discussion on this paper was particularly lively. Professor Jeffrey Gray of Oxford introduced many interesting points about the learning principles operating in complex social fields with human beings. He questioned, however, Dr. Truax's reliance upon internal rewards, maintaining that more direct evidence is needed of the intervening variables if canons of good scientific method are to be observed. His point was that there is circular reasoning in a good deal of argument about internal rewards. For often the experimenter infers that if there is a learning change without a visible external reward learning must derive from an internal reward, and he then accepts the notion of an internal reward without any independent evidence for it, as explaining the observed change in behavior.

Most participants felt that Dr. Truax had done a fine job of relating general learning theory to a wide variety of problems in the applied field, especially in education and in clinical psychology, to a degree not usually accomplished. Professor Cattell suggested certain motivation and personality measurements which might advantageously be included in further research to avoid a number of uncertainties and gaps in the present evidence, and Dr. Truax agreed that these would make a substantial improvement in the evaluation of personality change over time.

A brief concluding survey was made by the convener of the Conference, PROFESSOR CATTELL, who thanked all present for their contributions, and commented on the keenness which had prevailed throughout the meeting, to the extent that

apparently no one had been absent from any of the sessions from beginning to end of the Conference. He pointed out that the Conference had demonstrated that it is possible, as of this point of development in psychology, for people in very diverse areas of research to get together and speak a common language of methodological and conceptual precision. Several people who had not previously been as keenly aware of the point as they now were, had pointed out to him in discussions around the Conference that they realized that any effective integration of different fields in personality research definitely depended upon the common application of multivariate methods as well as the classical bivariate methods in the experimental field. This they had also recognized required the education of a new type of graduate student in experimental psychology and personality, who would be competent both in the classical bivariate experimental pattern and in the handling of multivariate experimental designs with their associated statistical complexities. The more energetic exchange of concepts between different fields had come about primarily because each had acquired the capacity to put its concepts in operational form. This operational form usually employs patterns of operations and measurements, and therefore requires some way of handling patterns by discriminant functions, canonical correlations, factor analysis, process analysis, and other multivariate approaches.

The speaker felt now even more strongly what he had voiced at the opening of the meeting, namely, that one of the major problems before psychology in the next decade would be the integration of personality theory and learning theory. This integration, as had surely become obvious from the meeting, would be achieved only by learning theorists acquiring multivariate designs and approaches and by personality theorists incorporating principles of reinforcement in much of their thinking about personality formation and structure.

However, although the success of the meeting had been largely due to the interaction of flexibly thinking younger men who were prepared to acquire new techniques and viewpoints, yet in research itself, some progress rested upon the adoption of practices of a more elementary nature. One of these was simply the use of more variables in common by different investigators! The situation has been that there are an infinite number of variables, and it is therefore possible for a finite number of psychologists to carry out their experiments without ever overlapping in any variable measured with any other psychologist. Professor Cattell urged that since some structure had already been established in personality, and since certain primary and secondary factors were already reasonably well known, that the studies on learning, development, situational relationships, genetics, etc., might proceed much more effectively if they coordinated their choice of measures among these demonstrated unities, rather than using a lot of ad hoc scales.

The rest of his comments were concerned with the eventual publication of the contributions as chapters in a book, concerning which he was negotiating for final agreement with the Aldine Press of Chicago. It was planned that if the book went forward, chapters would be sent in as first drafts within three months, analyzed and commented upon by Professor Cattell, who would then return them for second drafts. He stressed that since one of the main triumphs of the meeting had been the demonstration of the capacity of investigators in this area nowadays to interact on an operational level, replacing the failures of previous decades among purely verbal theorists, the chapters should from the beginning orient themselves to the mutual integration and cross-reference stimulated by the conference.

A vote of thanks was carried to the Office of Naval Research for supporting the Conference. Several spontaneous expressions of enjoyment of the meeting were voiced by those around the table, who even made some invidious comparisons with other meetings they had attended in the preceding six months! Professor Cattell said thanks were also due to Mrs. Deborah Skehen, who from the beginning had carried on the correspondence, made the traveling arrangements, and had kept all well informed and coordinated. He wished also to mention Professor Karl Delhees, who had devoted most of his time for the previous two weeks to assisting in the more technical arrangements and who would assist, by his notes, in the preparation of the final report.

The meeting broke up after lunch at 2:00 p.m. on Saturday, December 9, 1967, and a bus arranged by Mrs. Skehen carried the participants to the airport and railway stations in Champaign-Urbana.

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11 SUPPLEMENTARY NOTES

12 SPONSORING MILITARY ACTIVITY

13 ABSTRACT

A three day research conference on "Practicable Models in Personality Research" was held at the University of Illinois's special conference house at Allerton Park. 20 non-local (including 3 from abroad) and 22 local University of Illinois invited faculty and graduate students participated. The following papers were read and discussed: THE NATURE OF MODELS IN PERSONALITY THEORY, by R. B. Cattell; MODELS IN HANDLING RATING AND SELF RATING DATA, by J. S. Wilde; ENCOMPASSING THE SITUATION IN THE PERSONALITY MODEL, by G. Bechtel; THEORIES OF ANXIETY, by C. Spielberger; MODELS OF STRUCTURE EMERGING FROM OBJECTIVE PERSONALITY TESTS, by J. Hundleby; CONCEPTS OF PHYSIOLOGICAL AND PSYCHOLOGICAL INTERACTION, by J. Fahrenberg; THE TYPE CONCEPT IN PSYCHOPATHOLOGY, by G. Dahlstrom; A MODEL FOR PSYCHOLOGICAL STATES, MOODS, AND ROLE SETS, by J. R. Nesselrode; MODELS AND METHODS FOR INVESTIGATING PERSONALITY AND CULTURE, by C. Izard; CONCEPTS AND MODELS IN MOTIVATION RESEARCH, by A. B. Sweney; LEARNING THEORY AND PERSONALITY, by C. B. Truax.

The Conference demonstrated that it is possible, as of this point of development in psychology, for people in very diverse areas of research to get together and speak a common language of methodological and conceptual precision. It also showed that any effective integration of different fields in personality research is definitely dependent upon the common application of multivariate methods as well as the classical bivariate methods in the experimental field.

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