A planning conference, held in Chicago in 1968, sought to consider purposes and goals of a proposed research review in the area of personality, emotion, and motivation, and to provide guidelines for a conceptualization of the domain. The present outline accepts as a frame of reference the conceptualization of behavior as a function of inherited tendencies, motivation, and experience, all of which contribute to individual differences, as well as of environmental settings and the context of immediate situations. The strategy that appeared most promising to the group was that of assigning small groups of outstanding contributors, currently working in fairly specific problem areas of research, to carry out the following tasks in their respective areas: (1) specify needed research and research approaches, and (2) describe specific theoretical and methodological problems related to that research. Flexibility was considered desirable to provide for any modifications of the outline suggested in the course of the reviews. The report as presented has the substantial concurrence of the Chicago panel, and incorporates most of the suggested revisions. The plan is that it be used as a basis for Phase II of the project—the actual review.
CRITICAL REVIEW OF RESEARCH IN THE PERSONALITY-EMOTION MOTIVATION (PEM) DOMAIN, REPORT OF A PLANNING CONFERENCE

S. B. Sells, Ph.D.
Texas Christian University

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CRITICAL APPRAISAL OF RESEARCH IN THE PERSONALITY-EMOTION MOTIVATION (PEM) DOMAIN,
REPORT OF A PLANNING CONFERENCE*

S. B. Sells
Texas Christian University

INTRODUCTION

It is generally accepted that the concepts of personality, emotion, and motivation identify a domain of major importance to education and human affairs, but that the diversity of theoretical orientations, terminology, conceptualization, methods and goals of investigation, theorizing, and application reflects a confusing picture to the critical student. The proposal for a critical appraisal of research in this domain was prompted by an appreciation of the value that a systematic study of progress, trends, and needed research might have for workers in the field as well as for those concerned with the review of requests for research support.

The present contract provided funds for a planning conference to consider in detail the purposes and goals of the proposed review and to provide guidelines for a conceptualization of the domain and selection of individuals who might participate in the subsequent proposed review. The conference was held in Chicago on 13-14 December, 1968, and was attended by Professors Raymond B. Cattell and J. McV. Hunt, University of Illinois, Donald W. MacKinnon, University of California, Berkeley, and Warren T. Norman, University of Michigan, as Consultants. Dr. Robert H. Beezer,

Program Director, represented the Office of Education; the writer served as moderator.

Despite general concurrence on the importance of a systematic study of the broad "affective" domain, the participants all expressed some concerns about how the specific goals would be phrased and the mechanism to be adopted to achieve them. These concerns reflected doubts about the wisdom as well as the propriety of publishing, under Government auspices, a "blueprint" or directive document that might have the effect of disturbing the freedom of scientists to propose and pursue research of their choice. It was recognized that wisdom is never infallible and that creative genius often follows paths divergent with currently popular paradigms. As a result, an acceptable plan would need to avoid the biases of narrow and parochial selectivity as well as the stifling effects of authoritarian pressures.

These problems were explored at length, critically but constructively, with the result that in the end a promising resolution was achieved. The first part of this report presents an approach which provides for a broadly based, objective, and critical analysis of research problem areas and needs and at the same time avoids the parochialism of a blueprint. The remainder of the report consists of a preliminary outline and procedure for the study.

TERMINOLOGY

Although recognizing that almost any general term may be considered arbitrary, the conferees objected to the use of "affective" to describe the
domain under consideration on the basis that it tends to imply a dichotomy in relation to "cognitive," and that such a dichotomy is invalid. The compound expression, "personality, emotion, motivation," (PEM) more accurately identifies the processes and constructs involved. Broadly speaking, the PEM domain includes, but is not restricted to the constructs, anxiety, attitude, creativity, curiosity, interest, morality, emotion, motivation, personality, self concept, values, and other constructs related to them. It is regarded not as distinct from, but rather as combining cognitive along with affective components and as embracing general process as well as individual differences aspects. An examination of research needs in this broad domain would not be restricted by discipline and would include "basic" as well as "applied" research, and methodological as well as substantive and theoretical issues.

APPROACH

Any critical analysis of the tremendous volume of research, theoretical, and expository publications in the PEM domain would discourage attempts to develop detailed maps at this time. With the exception of a few programmatic efforts, which themselves await verification by independent investigators, research progress in this domain to date must be regarded as largely exploratory. A definitive identification of critical variables, concepts, structures, and processes remains to be accomplished. There are indeed numerous opportunities for matching constructs developed independently in different contexts, for bridging ideas that are conceptually related, at different
settings, for synthesizing related developments in restricted areas, and for criticizing methodologies and interpretations. However, a broad view of the domain suggests that there are many isolated pockets and piecemeal excursions that are extremely difficult to relate to the clusters. Consequently, a bridging, synthesizing, and matching, which would be confined to the more visible and more popular paradigmatic efforts, might conceivably ignore a large amount of potentially important scientific effort. The dangers of selective bias in this phase of a developing field augur poorly for a literature review as a principal method of stocktaking and status appraisal, although it is unquestionably essential that the participants in the proposed endeavor be thoroughly familiar with the literature relevant to each problem area included in the review. It is essential also that they be well informed about ongoing research activity in their respective areas.

The strategy that appeared most promising to the group, in the perspective of the foregoing discussion, is that of assigning small groups of outstanding contributors, who are currently working in fairly specific problem areas, to carry out the following tasks in their respective areas: (1) specify needed research and research approaches, and (2) describe specific theoretical and methodological problems related to that research. The emphasis here should not be on the identification of those ideas and trends that are "good" or "poor," but rather on what new knowledge is needed to clarify present information or to fill in hiatuses in present knowledge.
Presumably suggestions concerning needed research and methodological advice related to such research would be valuable for every definable problem area in the entire domain, particularly if they were to be contributed by highly knowledgeable and experienced investigators. It is entirely feasible and proper to consider each problem area on its own merits without any implication that any one is more important or more urgent than any other. At the same time, the hierarchical organization of knowledge may, provided that systematic consideration is given to a wide range of problems, converge on certain salient issues, approaches, and perhaps methodologies as being focal to progress in particular areas or subdomains at their particular stages of development. If so, this would be an outcome that might arise from the successive study of distinct problems by different investigators, rather than from a doctrinaire overview of the domain.

The approach outlined has important advantages. By enlisting the advice of active investigators in fairly specific areas, it assumes that knowledge of the relevant literatures, as well as of ongoing research, is already largely mastered and that extensive bibliographic studies are therefore unnecessary. It also presents a more attractive and manageable task to the busy and heavily committed scientist specialist than would a more encyclopedic literature review. Each could contribute significantly, but without an exhorbitant investment of time, in the area of his principal interest and expertise, without being diverted by a time-consuming concern for problems of lesser interest and familiarity. At the same time, the
total product would profit from the contributions of the best qualified
investigators in the entire domain.

Although at the outset the project would require a comprehensive out-
line of problem areas, such as is suggested in the next section, the pro-
posed approach recognizes implicitly the developing nature of the domain,
and, therefore, the tentative nature of any formulation that might be pro-
posed. In some areas, problems might be identified with much specificity
and detail, including paradigms that involve widely used terminology and
methodological approaches; in others, although the statements may initially
be broad and general, refinement might be made after careful consideration
is given by the initial task group. A degree of flexibility is considered
desirable to provide for any modifications of the outline suggested in the
course of the reviews.

OUTLINE OF PROBLEM AREAS

Orientation. The conceptualization of behavior as a function of
inherited tendencies, motivation, and experience, all of which contribute
to individual differences, as well as of environmental settings and the con-
text of immediate situations, is accepted as a frame of reference for the
present outline. As discussed by Cronbach (1957) in his presidential
address to the American Psychological Association, the dominant research
paradigms of psychology (including the PEM domain), which he characterized
as "experimental" and "correlational" psychology, have failed to study
behavior in all its complexity. According to Cronbach (p. 681),
"correlational psychology studies only variance among organisms; experimental psychology studies only variance among treatments. A united discipline will study both of these, but it will also be concerned with the otherwise neglected interactions between organismic and treatment variables." Unfortunately, there has been no perceptible departure from the status quo reported by Cronbach back in 1957, approximately twelve years ago, although in virtually every problem area, the indications for research that merges experimental with correlational designs are as insistent today as they were then. Examples are those outlined by Cattell (1952, 1957), and those that expand both approaches along the dimensions of Cattell's covariation chart (Cattell, 1950), which sample the universes of treatments (viewed as contextual situations), as well as individual difference trait variables and persons.

**Problem Areas.** The list of currently important topics presented below reflects the judgment of the ad hoc group that met in Chicago. It is not intended to be complete or comprehensive, but rather to suggest the scope of the inquiry. Continual review and revision of the topical outline will be necessary as the project proceeds. Subsequent study groups might even suggest other topics if indications for doing so are considered imperative. The order of listing here could also be subject to revision.

1000. PEM Aspects of Child Development

1100. Special Problems in Infancy and Early Childhood (birth to 5 years)

1101. Group care

1. Effects of orphanage rearing, multiple mothering vs one-to-one mother-child (or surrogate mother) relations

2. Related effects of environmental complexity
1102. Separation anxiety: fear of the strange
1103. Readiness
   1. General concept
   2. Special application to disadvantaged children
1104. Forced training ("pushing")
   1. In relation to "natural" intellectual limits
   2. In relation to readiness
1105. Sequential organization of learning
   1. In infancy
   2. In early childhood
1106. Parental involvement and influence on early development
   1. Effects of home environment, of implicit theories and practices of parents
   2. Manipulation of parental beliefs and practices, in enrichment programs
1107. Modes of learning and experience that affect early behavioral development
   1. Differential effects on anatomical maturation and behavioral development
   2. Correspondence between rates of anatomical and behavioral development
   3. Effects of environmental (experiential) enrichment and cumulative effects with increasingly complex circumstances
   4. Hierarchical conceptions of intellectual development (Piaget)
   5. Development of learning sets and their implications for intellectual, motivational, and personality development; resistance of resultant behaviors to extinction

1200. Child Socialization
1201. Conceptualization of the socialization process
   1. Socialization pressures
   2. Learning paradigms: e.g. dependency relations and adult control of "effects" (reinforcement), reference group formation
1202. Internalization of beliefs and values
   1. Conceptualization of attitude, belief, and value systems
   2. Identification processes
   3. Impulse control (self control)
   4. Effects of environmental resources
1203. Cognitive socialization
   1. Psycholinguistic structures, language development: effects on thought, beliefs, attitudes, interests; patterns of expression, values
   2. Uncertainty and information-seeking
   3. Development of expectancies; category accessibility; assimilation; effects on perception, cognition, action
   4. Symbolism, symbolic behavior
1300. Personality Development
1301. Developmental theories (Freud, Erikson, Piaget, Sears)
1302. Developmental sequences, stages
   1. Critical periods
   2. Fluid and crystallized patterns of intelligence (Cattell)
1303. Development of self-identity
   1. Self-concept, ego theories, self theories
   2. Relations to social class, racial-ethnic factors, region, sex, family characteristics
1304. Effects of age, sex, culture, and other environmental factors
1305. Development of mechanisms of coping and adaptation

1400. Behavior Change
1401. Personality learning
1402. Susceptibility to change of personality traits, attitudes, interests, beliefs, values
1403. Measurement of change
1404. Genetic, maturation, and learning factors in physical and psychological growth

2000. Personality
2100. Conceptual and Theoretical Approaches
2101. Criteria for a viable theory
2102. Development of unified, integrated theoretical formulations
   1. Cross-level comparisons and correlations
   2. Developmental histories of stable traits
   3. Relations among trait patterns at various developmental levels
   4. Relations of traits to perceptual responses in person perception and interpersonal interaction

2200. Cognitive Conceptions
2201. Cognitive style, complexity
2202. Balance theories
2203. Cybernetic formulations
   1. Computer simulation of personality
   2. Mathematical models

2300. Developmental Approaches (see 1300)
2400. Dynamic Approaches (see 1303, 4000)
2500. Morphologic Approaches
2600. Physiologic, Biochemical Approaches (see 2102.1)
2700. Trait Structure, Multivariate Approach – Taxonomy of Trait-Explanatory Concepts of Stylistic and Temperament Aspects of Personality

2701. Methodological problems: definition of universes of behaviors for self-report, observation-rating, and objective test studies, cross-media matching of stable structures, design paradigms, including multi-modality designs and trait x treatment designs; construct validation of traits; effects of age, sex, sample, culture, and other environmental effects, and relations of these to resulting trait patterns; the range of roles and sets in relation to diversity of response patterns obtained (social desirability, acquiescence, and other specific sets), their similarities in terms of effects on self-description, and the relations of traits to moderator variables representing such sets

2702. Observational, rating methods: rater and "ratee" sources of effects in peer and "other" ratings, in observational trait assessment, and in interpersonal interaction; explicit concern with task, stimulus presentation, response format, socio-environmental setting, and demographic characteristics of participants; conceptual and empirical relationships among similar and related trait descriptors within observational-rating subdomain and in other subdomains (self-report)

2703. Self-report methods: item pools; format; item vs cluster factorization; measurement of and correction for response bias or distortion; development of a unified, consistent conceptual framework for concepts of personality style and temperament

2704. Objective test, misperceptive, indirect assessment, and development of fresh, new approaches to personality measurement and description

2800. Creativity

2801. Conceptualization of creativity; relations to intelligence, personality factors

2802. Characteristics of the creative person

2803. Analysis of the creative process

2804. Characteristics of the creative product

2805. Characteristics of the creative situation, short- and long-term; situational factors contributing to creative performance

2806. Measurement of creativity

3000. Emotions

3100. State Patterns: Physiological, Cognitive, Behavioral

3101. Arousal stimuli

3102. Response dimensions

3103. Uniqueness

3104. Learned-unlearned dimensions
3200. Relations to Traits, Roles

3300. Moderation of Expression by Learning
   1. Culture patterns
   2. Age, sex, group norms

3400. Drug Effects on Emotional Patterns

3500. Differentiation of States, Reflecting Situational, Organismic, and Stimulus Variations, from Traits, Represented as Long-Term Individual Dispositions

3600. Arousal States: Adrenergic Response, Stress

3700. Dysphoric States: Anxiety, Depression, Guilt, Shame, Remorse

3800. Euphoric States: Happiness, Elation, Joy, Hope, Confidence

4000. Motivation

4100. Conceptualization and Theory (human motivation)
   4101. Homeostatic systems, physiological need
   4102. Need-press system (Murray), subsystems (n Ach)
   4103. Dynamic systems (Freud, Cattell)
   4104. Cognitive and cybernetic approaches: motivation inherent in information-processing functions (Hunt), cognitive dissonance theory, incongruity, collative variables (Berlyne), balance theories, exchange theory
   4105. Motivation inherent in individual performance, competence motivation (White)
   4106. Trait systems and patterns (Guilford, Cattell)
   4107. Value systems, moral character
   4108. Conceptualization of interest, attitude, need, belief, value, ideal

4200. Process and Trait Formulations
   4201. Relations and differences in conception and approach
   4202. Process theories and formulations
      1. Balance theories
      2. Exchange theory
   4203. Trait formulations: motives, values, character traits
      1. Methodology of measurement: Strong paradigm, Thurstone scales, Likert scales, Cattell's and Campbell's indirect approaches: self-report, objective, misperception, observation, rating, content analysis, unobtrusive measures
      2. Analytic approaches: factor analysis, multidimensional scaling, profile clustering
3. Factored patterns of sentiments, attitudes, interests, beliefs, values
4. Variations related to age, sex, sample, culture, and other environmental factors

4300. Frustration and Stress
4301. Frustration theory and research evidence
4302. Conceptualization of stress
   1. Relation to frustration (Selye)
   2. Utility of stress concept in interpretation of behavior

4400. Conflict
4401. Conceptualization of conflict (Miller, Murphy, Cattell)
   1. Types of conflict: role, value, internal
   2. Approach and avoidance relations
4402. Conflict measurement and calculus
4403. Conflict in relation to interpretation and prediction of action

4500. Interests and Vocational Guidance
4501. Incremental value of interest measurement over ability and aptitude measures in predictions of various criteria on various populations (Thorndike, 10,000 Occupations; Clark, Minnesota study)

5000. Environmental Variables
5100. Conceptualization of Environmental Variables and Their Effects on Behavior; Human Ecology
5200. Methodologies for Encoding Environmental Factors
5300. Taxonomic Systems of Environmental Variables
5400. Normative Studies of Selected Behaviors in Relation to Defined Patterns of Environmental Setting: Sampling Problems in Relation to Populations, Behaviors, Macro- and Micro-Environmental Settings

6000. Interpersonal Behavior Processes
6100. Group Theory, Role Theory, Interpersonal Settings
6200. Interpersonal Perception, Attraction, Influence; Social Acuity, Empathy

7000. Variations in Psychological Processes
7100. Paradigms for such Research, Taking Account of Persons, Tasks, Environmental Settings, and Occasions (Cattell covariation chart, Campbell-Fiske model, longitudinal replication)

7200. Paradigmatic Studies of Selected Learning, Motivation, Perception, and Other Psychological Processes to Investigate Variations Attributable to Shifts in Subject, Task, Setting, and Occasion Dimensions

7201. Analyses to estimate magnitudes of variance components in standard dependent variables accounted for by trait, treatment, and trait by treatment sources and their specific constituents

7202. Analysis of total interaction parameter estimates into principal components or other dimensions in order to compare results by such methods with conventional R, P, Q analysis, both with single dependent variables and vectors (multiple dependent variables)

Procedure. It is planned that the consultants who met in Chicago will be used as an advisory committee to review further and refine the preceding outline of problem areas. They will correct observed omissions, consolidate redundant items, and restate the entire outline in terms of focused problems that might be submitted to task groups for evaluation. Although a list of names of good potential consultants for the task groups has already been compiled, this list will be updated in conjunction with a subsequent revision.

The procedures to be followed by the task groups will also be refined as the project evolves. Initially a chairman for each task group will be chosen. Then three to five additional members, the number depending on the problem, will be selected with the collaboration of the chairman. The principal task to be assigned to each group will be to outline needed research and problems related thereto in the respective areas. However, in order to provide a uniform format for reporting, as well as to give the participants an opportunity to supply some appropriate context to the reports, the coordinator will present to each task group the following tentative outline:
1. Restatement of the problem area as viewed by members of the task group.

2. Relevant literature.

3. Research needed to advance the area.

4. Theoretical issues involved.

5. Methodological issues involved.

6. Contributions to knowledge and to applications of psychology expected.

Each task group member will receive an outline of the project objectives, and a statement concerning his assigned problem area. Each group member will be asked by his respective chairman to send him complete preliminary memoranda independently. A chairman may compile and recirculate the recommendations or he may wish to request funding for a group meeting. In many cases, the task group reports may be completed by correspondence, but some provision for group meetings, particularly when issues are controversial, should be provided. To the extent possible, communication and travel considerations will be taken into account in the selection of task groups.

CONCLUDING COMMENT

This report has the substantial concurrence of the Chicago panel and incorporates most of the revisions suggested by them, although the final draft is the author's responsibility. It is planned to use it as a basis for a proposal for Phase II of the project, following procedures substantially as
outlined above. A staff associate will be needed to work with the principal investigator on the organization and management of the project operations. It is anticipated that the final product will be a monograph incorporating the task group recommendations, along with appropriate documentation.