Behavioral Science Memorandum Number 10 was the initial venture into annotating selected books, articles, and monographs for the guidance of busy instructors responsible for teacher education. The responses to the annotated bibliographies have been positive. Apparently some sort of handbook for learning through guided discovery is a possible means of orienting college professors and students in teacher education to the realization that the major objective in the educational encounter is not "soaking up" information for later "selective regurgitation" in examinations but the acquisition of the intellectual capabilities necessary to relate new information as it develops to the underlying principles of a field study. (137 annotated entries)
The two bibliographies in this memorandum, one on Child and Human Development and the other on Human Development and Education, merely sample the literature. They point to books and journals which provide many ideas and explanations, as well as some tiresome reading. What the writer regards as "tiresome" or irrelevant, of course, may be of interest to other persons.

I. Child and Human Development


Allport, Gordon W. Pattern and growth in personality. New York: Holt, Rinehart & Winston, 1963. (Revision of Personality, a psychological interpretation, 1937, with references to recent investigations)... **The first three parts of this book provide a historical background to studies of personality together with a meaningful distinction between the development and the structure of personality. Part IV discussed the "assessment of personality", whereas Part V elaborates upon Allport's view of the Intrapersonal approach in terms of person perception and the person in Psychology. **The education of graduate students is incomplete without a reading of this book together with Henry A. Murray, Explorations in personality (Oxford, 1938) which is in a paperback edition as well as in a reprint by the Free Press.


*Ausubel, David P. A cognitive structure view of word and concept meaning. Original article in Anderson & Ausubel's Readings in the psychology of cognition (Holt, 1965) pp. 58-75. Concepts are woven into the cognitive structure when they "make sense" and are related to relevant ideas already present; i.e., translated into a personal frame of reference (S cog).

Beaton, Albert (ETS). An inter-battery factor analytic approach to clique analysis. *Sociometry*, 1966 (June), 29, 135-145. - Since the sociographic method and IPS values for sociometric nominations to and from peers were presented in *Child Development* (1952), and appreciated by James Maxwell (Edinburgh) in *Ann. Rev. Psychol.*, 1954, 5, 357-376 (p.365), this seems to be the first major advance in coping with sociometric data which is suggested in this article. The proposals for further study are in the article. The possibility of developing clique membership data and indices of acceptance by age-mates should be investigated further. A copy of the original qualifying D.Ed. paper probably could be obtained on inter-library loan from the Library of the Graduate School of Education at Harvard.


Berlyne, D.E. *Structure and direction in thinking*. New York: Wiley, 1965. **Introduces a system of concepts to permit an integrative conceptualization of thinking... draws upon behavior theory, the Geneva research of Piaget, as well as recent developments in Russian psychology... considers directed thinking and productive thinking (creativity) in terms of variables explaining more routine forms of thinking.


Brayfield, Arthur H. (APA Exec. Sec.) Human effectiveness. *Amer. Psychol.*, 1966 (Aug.), 20, 685-691. "That psychology is not uniquely linked to any existing social institution... "society is caught up in a gigantic tide of rising expectations... and this cultural phenomenon is not limited to the under-developed countries or to the civil rights movement"... The efforts of psychologists would have a focus if "our predominant orientation was to the establishment and maintenance of effective behavior in all realms of human behavior."... Consideration of proposals by Robert Gagne (*"Task Analysis and the Establish-
One attractive strategy would be to "capture" an ongoing social institution (e.g., education) in which to assume leadership, giving expression to interests and competence.

Brown, Roger. Social psychology. New York: Free Press, 1965. - This book should be invaluable for 385.1 (The Individual Through the Life Cycle), 385.2 (Individual in Society), and 385.3 (Developmental-Social Psychology), as well as the doctoral qualifying examinations. Part III: Socialization of the child; Part IV: Personality and society...refreshingly readable and unusually candid style.


Bruner, Jerome S. (Harvard). The course of cognitive growth, American Psychologist, 1964 (Jan.), 19, 1-15. The most important thing about memory... is the retrieval of what is relevant in some usable form. Modes of representation (gestures): (1) Enactive - past events through motor response; (2) Iconic - selected percepts and images; (3) Symbol System - remote and arbitrary representation, but productiveness in combination.

Bruner, Jerome (APA President). Growth of mind. Amer. Psychol., 1965 (Dec.), 20, 1007-1017. The limits of growth (development) depend on how a culture assists the individual to use such intellectual potential as he may possess. ... that the full evolution of intelligence came as a result of bipedalism and tool using. ... In more complex societies: (1) telling out of context rather than showing in context ... the separation of knowledge and action (problems of impulse regulation and socialization of motives... culture-instilled attitudes toward the uses of mind.) (1) Play practice of component skills... (2) teaching-in-context of indigenous societies... (3) the abstracted, detached method of the school. The five great humanizing forces are (a) tool making, (b) language, (c) social organization (d) the management of man's prolonged childhood, and (e) man's urge to explain.


Campbell, Ernest Q. (Vanderbilt). The internalization of moral norms. Sociometry, 1964 (Dec.), 27, 391-412. Thoroughly documented theoretical development of the problem; definitions and assumptions; design, data, and measures--use of a semi-projective completion technique to measure the internalization of an abstinence norm in high school seniors to predict continued conformity under changed normative and surveillance conditions of college. The methodology might be adapted for other purposes.

Campbell, John D. (NIMH). Peer relations in childhood. Review of Child Development Research, 1964, I, 289-322. - Adolescent subcultures (Clark & McGuire, 1952) are left for a chapter in the second volume... The parts played by peer groups (age-mate societies) in socialization differ from one society to another... Peer group as a socializing agent... Influence processes in the peer group.

Charters, W.W., Jr. & Gage, N.L. (Eds.). Readings in the social psychology of education. Boston: Allyn & Bacon, 1963. - Read the Introduction by the editors (xv-xxiv). Valuable summaries of social class and education (3-11), and IQ tests (12-20); conditions for hostility (196-211); role studies (309-318); Yale studies of communication and persuasion (239-253). The selected articles demonstrate a number of approaches to undertaking research to demonstrate theories and hypotheses about the "Individual in Society."


Coleman, James S. Introduction to mathematical sociology. New York: Free Press (Macmillan), 1964, paperbound $9.95. - Coleman uses a mathematical framework to provide a practical tool of multivariate analysis for attribute data, ordered classifications, and unordered classifications. He shows how this framework can be applied at both group and individual levels to explore a wide variety of problems commonly confronted in the social sciences.


Emmerich, W. Continuity and stability in early social development. Child. Develm., 1964, 35, 311-332. A study of the behavior of 38 preschoolers over a two-year period. The active-passive dimension in interpersonal behavior becomes more relevant with time, a friendly-hostile dimension decreases in importance, and introversion-extroversion is the most stable behavioral dimension. Data were not analyzed separately for boys and for girls.

Emmerich, Walter (Purdue). Continuity and stability in early social development: II Teacher ratings. Child Develpm., 1966 (March), 37, 1-28. - Extends systematic observations to teacher ratings as a different source of data in a short-term longitudinal study of behavioral continuity-discontinuity and individual stability-instability. Notice the absence of analyses for boys and girls separately until questions about the autonomy factor were raised.

Fishein, Martin (Illinois). The perception of non-members: A test of Merton's reference group theory. Sociometry, 1963 (Sept.), 26, 271-286. - The article provides a valuable introduction to an important theory in the behavioral sciences and an example of the manner in which hypotheses derived from theories may be tested.


Colburgh, Stephen (Ed.). The experience of adolescence. Cambridge, Mass: Schenkman Publishing Co., Inc., 1965, paperbound $1.95, book $4.50. **College students tell us what they feel was important about their adolescent experience. The resulting book is for teachers, counselors, psychologists, parents and students of personality, normal and abnormal psychology, etc.


Grinder, Robert E. (Wisconsin). Relations between behavioral and cognitive dimensions of conscience in middle childhood. Child Development, 1964 (Sept.), 35, 881-891. A real-life temptation situation and stories tapping "moral realism" and "immanent-justice" were employed with 9-, 9-, and 11-year-olds to investigate the interrelations of age resistance to temptation, and "morality of constraint-behavior."


Hess, Robert D. (Chicago). High school antecedents of young adult achievement. In R.E. Grinker (Ed.), Studies in Adolescence. New York: Macmillan, 1965. Pp. 401-414. - A concise example of a research report based upon an USOE Cooperative Research Project. Notice the economy of words employed to set forth the problem, indicate the design, and define the variables for both the high school and the follow-up study, present the results (using six tables), then summarize and point out implications of the findings. Also note the effective use of headings and subheadings in the article especially prepared for the readings. The references do not follow APA style, but they are consistent in footnotes.


Hamans, George C. Bringing men back in. Amer. sociol. Rev., 1964 (Dec.), 29, 809-818. - The President of the ASA mounts an attack on the "functional approach" in the behavioral sciences. His argument that explanatory principles ultimately have to be psychological could be rephrased if one thinks of institutions (such as marriage) being necessary in all societies everywhere so as to bring order to inevitable human encounters such as the conception, gestation and birth of children to maintain the society by means of individual replacement and the socialization of prospective new members born into family and kinship systems.


Iscoe, Ira & Pierce-Jones, John (Texas). Divergent thinking, age, and intelligence in white and Negro children. Child Develpm., 1964, 35, 787-797. - Ideational-fluency and ideational-flexibility scores were obtained from responses to Unusual Uses Test. Divergent thinking scores were higher for Negro-American children and not dependent upon age. The authors point to a need for developmental studies of originality in various social and cultural contexts.

Kagan, Jerome (Fels, Harvard). Acquisition and significance of sex typing and sex role identity. Review of Child Development Research, 1964, 1, 137-168. (Russell Sage Foundation). Identification as a basis for sex-role identity; learning of sex-role behaviors; physical maturation and class-typed expectations in relation to sex-role behavior; relation to intellectual mastery and sexuality; the motive to match one's behavior to a standard; "Expression of sexual behavior, verbal aggression, or academic mastery sometimes may be an intermediate act that serves a more powerful motive than sex, aggression, or achievement; namely, the desire for congruence between an ideal representation of the self and one's every day behavior." See Seward (1963) for a similar statement from another frame of reference.


Xohlberg, Lawrence (Chicago). Development of moral character and moral ideology. Review of Child Development Research, 1964, I, 383-331 (SRCD and Russell Sage Foundation). How does the amoral infant become capable of morality... Moral development as internalization of basic cultural rules indexed by resistance to temptation... Character as moral conduct, as superego strength, as good habits acquired by training, as ego strength... Moral judgment as the use and interpretation of rules in conflict situations... reasons for moral action; dimensions of moral judgment arising from Piaget's stage theory; guilt and other reductions to transgression; relation of moral ideologies to personality integration.

Maccoby, Eleanor E. The choice of variables in the study of socialization. Sociometry, 1961, 24, 357-371. Reprinted in Steiner & Fishbein (Eds.). Current studies in social psychology. (Holt, 1965). Pp. 56-69. Examines confusion over the meaning of variables and a range of findings which have not as yet been integrated into a theory of socialization.

Mackinnon, Donald W. (California, Berkeley). Personality and the realization of creative potential. Amer. Psychol., 1965 (April), 20, 273-281. **Ranks three stages in the development of individuality—the artist, the man of will, and the creative type—have a certain congruence with three samples of architects studied in three domains: (a) socialization and interpersonal behavior, (b) complexity of psychological development, (c) psychological health.

Mackworth, Norman H. (Harvard). Originality. Amer. Psychol., 1965 (Jan.), 20, 51-65. (The 11th Bingham Lecture, 1964). **Table 1, Problem solving and problem finding by humans... Formation and destruction of ideas... "Make some mistakes and admit them." Valuable references.

Marx, W.N. (ed.). Theories in contemporary psychology. New York: Macmillan, 1964. Theory construction (Marx), 44-46; measurement scales and statistical models (Burke), 147-159; types of constructs (Spence), 162-178; molar problems (Allport) 253-271; developmental psychology (Zigler), and validation in psychoanalysis (Horwitz), 413-434; affect and emotion (Peters) 435-454; thinking (Taylor) 475-493.

McClelland, David C. (Harvard). Toward a theory of motive acquisition. Amer. Psychol., 1965 (May), 20, 321-333. **Too little is known about the processes of personality change at relatively complex levels... the proposition that all motives are learned... In time clusters of expectancies grow up around affective experiences, not all of which are connected to biological needs... motives as "affectively toned associative networks"... Variables conceived as entering into the motive change process (Table 1)... an influence process wherein constant mutual stimulation takes place.

McGuire, Carson. Foundations of emotional development. Tex. St. J. Med., 1960 (Sept.), 56, 723-725. - Our emotions are the price we pay for being human when living with other human beings. The infant is not born with emotions but has the potentials for emotional reactivity. Three essential steps mark the transition from the infant organism to the human being: the self-other relationship, learning a language, and acquiring complex motivation other than immediate gratification or avoidance of deprivation. Each of these steps toward finding self identity and personal integrity potentially is emotionally loaded.
McNemar, Quinn (Stanford, Texas). Lost: Our intelligence? Why? Amer. Psychol., 1964 (Dec.), 19, 871-882. **Abilities, or capacities, or aptitudes, or intellectual skills, or whatever you choose to call them, are measured in terms of response products to standardized stimulus situations (S-O-R)... Note remarks about the DAT, PACT, GATB, PMA, CTMM, CHF (Terman Concept Mastery Test), and studies of creativity.

Moore, Bernice M. & Holtzman, Wayne H. (Texas). Tomorrow's parents: A study of youth and their families. Austin, Texas: The University of Texas Press, 1965. - The chapter or the "story of the study" contains the items employed in the 14 scales of the Texas Cooperative Youth Study with item-scale correlations. Methods of Analysis and tables are relegated to Appendix A, pp. 279-302; Appendix B reproduces forms used in the study.

Opler, Marvin K. Culture, psychiatry, and the human values: The methods and values of a social psychiatry. New York: Atherton Press, 1965, $6.95. - A revised and augmented edition of a landmark in psychiatric and social science literature. This brilliant and engaging book ranges through the entire field of cultural anthropology and psychodynamics and includes a discussion of the interrelationship between cultural background and mental health and efficiency that is of special value to teachers and students of learning processes.

Peck, Robert F. (Chicago, Texas). Family patterns correlated with adolescent personality structure. J. abnorm. soc. Psychol., 1958 (Nov.), 57, 347-350. - This research report was not generally appreciated until two years after publication; see p. 444 in P.H. Rusten, Ann. Rev. Psychol., 1960, 11, 439-478. - The article demonstrates the manner in which the report of an eight-year longitudinal study can be conveyed in a journal article in contrast to a book; see Peck's The Psychology of Character Development (Wiley, 1960). The research (in Prairie City) supports the view that key elements in the personality depend, at least in part, upon familial emotional and regulatory patterns; e.g., ego strength occurred in association with family life marked by stable consistency together with warm, mutual trust and approval among members. Similarly, elements of personality such as superego strength, generalized friendliness and spontaneity, as well as a hostility-guilt complex could be traced back to probable familial antecedents. (Persons who have the urge to test other kinds of antecedent-consequent propositions or to undertake studies of sources of variation and covariation could use HTRP data to do so since the data are being organized to permit access).


Prohansky, Harold & Seidenberg, Bernard (Eds.). Basic studies in social psychology. New York: Holt, Rinehart & Winston, 1965 (illustrates the types of research--mostly published before 1958--in which current work in the field is rooted; this book is supplemented by Steiner & Fishbein's Current studies in social Psychology (printed by the same publishers).

Rosen, B.C. Social class and the child's perception of the parent. Child Develop., 1964, 35 1147-1153. **MC boys describe their parents as competent, accepting, and interested in them, while LC children rate parents as more harsh and less nurturant.
Sanford, Nevitt. *Self and society: Social change and individual development.* New York: Atherton, 1965. - In this pioneering work a distinguished psychologist breaks new ground in exploring the interaction between social environment and personality structure. A challenging volume for courses in personality, culture and personality, and social psychology; the book is also an indispensable addition to every sophisticated educator's library.


**This presentation deals with the neurological and organic substrates of our sense of body as the important starting point, and only then moves on to the social-contact feedback with which other authors seem to begin.**


*Seward, John P. *The structure of functional autonomy.* Amer. Psychol., 1963, 18, 703-710. Reprinted in Steiner & Fishbein (Eds.), *Current studies in social psychology* (Holt, 1965). Pp. 5-16. A theory of functional autonomy (Allport) is superfluous since organisms approach and withdraw, explore and manipulate, all as a function of specific differences between the present situation and expectancies built into their schema of the world. ("Curiosity" and "effectance" are accepted as the "new look" in motivation theory in contrast to orthodox behavior theory).


Skolnick, Arlene (California; to Texas, 1966-1967). *Stability and interrelations of thematic test imagery over 20 years.* Child Develop., 1966 (June), 37, 389-396. - TAT stories of 44 males and 40 females, with protocols for both periods, were scored for imagery relevant to achievement, affiliation, power and aggression. Males tend to remain stable in power and aggression; females in achievement and, to some degree, affiliation. The major exception to a scheme of two broad dimensions of behavior--pro-social and self-assertive--is a correlation between aggression and affection in adolescent girls (Oakland Growth Study data).

Smelser, Wm. T. (California). *Adolescent and adult occupational choice as a function of family socioeconomic history.* Sociometry, 1963 (Dec.), 26, 393-409. - This is kind of follow-up study Professor A.C. Murphy had hoped to carry out with a sample of subjects in the HTRP. With reports now going in to the USOE, the opportunity to undertake such a project is opening up.

Steiner, Joan D. & Fishbein, Martin (Eds.). Current studies in social psychology. New York: Holt, Rinehart & Winston, 1965 (Published for SPSSI to update the Readings in social psychology edited by Newcomb & Hartley in 1947; by Swanson, Newcomb & Hartley in 1952; and by Eleanor Maccoby, Newcomb & Hartley in 1958--designed to exemplify very recent developments.)


Swanson, Guy, E. (Michigan). On explanations of social interaction. Sociometry, 1965 (June), 28, 101-123. - This essay along with the ones by Goldschmidt (1966) and by Homans (1964), may become one of a set of statements which should provoke much thought and exchange of ideas in the behavioral sciences. Swanson, like Homans, tends to believe "that all theory in the social sciences will be logically reducible to that of a general psychology," but rejects Homans's leaning toward Skinnerian "operant behaviorism." This annotator (CMcG) believes both men have missed the part played by "inevitable human encounters," the first of which conceived the organism which has to be brought up in social institutions so that they may become human beings. All societies everywhere have similar institutions since the biological nature of man and the phenomenon of "individual replacement" of members of a human society require institutions such as marriage and structures such as the family and kinship systems to ensure survival. And of the inevitable human encounter, the mother-child symbiotic interaction system makes "Mind, Self, and Society" possible and initiates both cognitive behavior and social interaction.


Vernon, Philip E. (U. London). Ability factors and environmental influences. Amer. Psychol., 1965 (Sept.), 20, 723-733. **The 12th Bingham Lecture on "discovering of the talented"... cross-cultural testing... Determinants of test performances... Major environmental handicaps (physiological and nutritional factors, perceptual deprivation, repression of independence and constructive play, family insecurity, female dominance, educational deprivation, linguistic handicaps, lack of role models)... characteristics of tests which distort results... Results obtained in England and the West Indies.
Wallace, Anthony F.C. Culture and personality. New York: Random House, 1961, paperback $1.95. A timely and provocative presentation of past and present theories of culture and personality in which the author traces the evolution of culture and the psychology of culture change, and indicates the relation between culture and personality patterns.


White, Robert W. (Ed.). The study of lives: Essays on personality in honor of Henry A. Murray. New York: Atherton, 1964. Essays on impulse (Sanford), interpersonal competence (White), the method of self values (Smith), ideology and personality (Tomkins), and "the cycle of life" (Erikson) tend to reveal concern for lifelike methods, adequate variables, and the place of values in a psychology of personality.


Zajonc, Robert B. The concepts of balance, congruity, and dissonance. Public Opinion Quart., 1960, 24, 280-296. Reprinted in Steiner & Fishbein's Current studies in social psychology (Holt, 1965). Pp. 27-41. Any concept of consistency assumes human rationality and that any type of inconsistency is a noxious state setting up pressures to eliminate or reduce it (e.g., horror vacui). The article examines Heider’s balance theory, Osgood & Tannenbaum’s principle of congruity, and Festinger’s theory of cognitive dissonance as intrapersonal phenomena, as well as Newcomb’s “strain toward symmetry” among individuals, and the intra-individual dynamic of consistency within a personality which appeared in The authoritarian personality (Harper, 1950). The writer looks forward to a theory which accounts for all the data considered by consistency principles as well as the exceptions (e.g., enjoyment of a magician’s performance).

Zigler, Edward; Jones, Iyle V.; & Kates, Patricia. Acquisition of language habits in first, second, and third grade boys. Child Development, 1964 (Sept.), 35, 3, 725-736. The Language Modalities Test for Aphasia was administered to 44 first, second, and third grade boys subdivided according to 3 levels of test anxiety... The findings suggested that the language process can be meaningfully segmented into components which display differential patterns of development.
II. Human Development and Education


Anderson, Richard C. (Illinois). Can first graders learn advanced problem-solving skills? *J. Educ. Psychol.*, 1965 (Dec.), 56, 283-294. - The research contradicts Piaget & Inhelder's view (1958, p.335) that the technique of varying each factor in succession while holding all other factors constant does not appear until 14-16 years of age. The project was designed to demonstrate that reasoning and problem-solving capacities are best conceived to consist of repertoires of behavior, modifiable in accordance with (neobehavioristic) principles of learning, instead of being inaccessible structures and processes. The author interprets Bruner and Smedslund as maintaining that basic changes in level of intellectual functioning are more matters of "internal equilibration" through "internal cognitive conflict" than of learning as the consequence of "external reinforcement." (Although Anderson employs a behavioristic approach, he does not appear to be aware of Berklyne's notions of "epistemic curiosity" and "conceptual conflict.")

Aschner, Mary Jane & Bish, C.W. (Eds.). *Productive thinking in education*. Washington: National Education Association, 1965 (Report of NEA Project on the Academically Talented Student). Paper, $3.00. Structure of the intellect (Guilford, Wilson) 4-32; role of the school in compensating for environmental deficits (Ausbel), 45-62; motivation to achieve (Alpert, Caron), 109-152; personality correlates of creativity (MacKinnon, McGuire, Drews), 159-239; needed educational changes (Taylor, Gallagher), 246-269; educational implications of research on productive thinking (Passow, Ward), 271-306. Do not miss Albert J. Caron's chapter 5, "Impact of motivational variables on knowledge-seeking behavior," pp. 131-151, particularly the sections upon symbolic response (134-135), motivation of thinking (142-144, as well as 148). Caron draws upon Berklyne's concept of epistemic behavior and his proposal that thinking be regarded as an extension of exploratory behavior.

Ausbel, David P. (Illinois). A teaching strategy for culturally deprived pupils: Cognitive and motivational considerations. *School Rev.* 1963 (Winter), 71, 454-463. - Selection of initial learning material geared to the learner's prior opportunities to acquire basic intellectual skills ("readiness"); use of structured, sequential materials with enough diversification to ensure consolidation or mastery of on-going lessons before new material is introduced; meaningful school learning supplies its own intrinsic motivation (often as a consequence of teacher planning so that the learner knows he has achieved); experiencing "pay-offs" from learning experiences, and observing it for others, as the basis of the most effective extrinsic motivation among educationally deprived boys and girls.

Bandura, Albert (Stanford). The stormy decade: Fact or fiction? *Psychol. in Schools*, 1964 (July), 1, 224-231. - The paper summarizes interpretations from a study of adolescent boys brought up in middle class families; c.f., Bandura, A. & Walters, R.H., *Adolescent Aggression* (Ronald, 1959). Apparently these boys have internalized parental values and share them with age-mates; dependence-independence conflicts are minimal; traditional "stage theories" of child development are questioned as are "the Adolescent Mythology." In contrast, the HTRP data suggest a subtle transformation in elements of personality near the
time of puberty when a shift in "body image" becomes necessary and there is a "re-formation of the ego" (Sheriff & Cantril, 1947). Since the boys studied were 17 and 18 years, the study of HC adolescents probably missed the "Years of Transformation."


Berlyne, Daniel E. (Toronto). Discovery methods on education. In Berlyne's Structure and direction and thinking. New York: Wiley, 1965. Pp. 254-259. Also read sections upon "Learning Reinforced by Epistemic Curiosity" (p. 269); "Conceptual Conflict and Attitude Change" (pp. 271-273); "Conflict and Recourse to Symbolic and Epistemic Behavior" (pp. 278-281); "Productive Thinking" (pp. 315-346).

Berlyne, D.E. & Frommer, Frances D. (Toronto). Some determinants of the incidence and content of children's questions. Child Develop., 1966 (March), 37, 177-190. - The article reports an experiment with children in a laboratory school maintained by the U. of Toronto Institute of Child Study. Notice the manner in which the experiment has been designed to test, and the data analyzed to support Berlyne's argument that questioning is a form of epistemic behavior, directed toward, and reinforced by, acquisition of knowledge... motivated by epistemic curiosity, conceived as a condition of high drive or arousal induced by conceptual conflict. Also note the awareness of ideas and work being done by Piaget, Susan Isaacs, and others; as well as the care taken in maintaining a consistent neo-behavioristic point of view.

Berry, Paul C. Pretending to have (or to be) a computer as a strategy in teaching. Harv. educ. Rev., 1964 (Summer), 34, 383-401. - Fascinating article. The explicit statement of procedures required for programming a computer is suggested as a model: (1) to specify components of a task, (2) to compare the features of a child's performance with what is logically required for the task, and (3) to show the child how to make his own instructions explicit by doing the programming himself and seeing its consequences. Elementary counting among first graders is presented as a miniature example of these procedures, but they are believed to be far more generally applicable.


Calitri, Charles J. (Hofstra). A structure for teaching the language arts. Harv. educ. Rev., 1965 (Fall), 35, 481-491. - Motives involved in language--artistic, communicative, analytic, and aesthetic--are crucial to an understanding of the child's behavior in language. Implicit in the approach is an unwritten contract between student and teacher, appropriate to the motive underlying what a student writes, and suitable teacher responses. For example, "if a student is motivated to care about the image his work projects, the teacher is authorized to reject his failures and to help him improve."
Charters, W.W., Jr. & Gage, N.L. (Eds.). Readings in the social psychology of education. Boston: Allyn & Bacon, 1963. - Read the Introduction by the editors (xxv-xxiv). Valuable summaries of social class and education (3-11), and IQ tests (12-20); conditions for hostility (196-211); role studies (309-318); Yale studies of communication and persuasion (239-253). The selected articles demonstrate a number of approaches to undertaking research to demonstrate theories and hypotheses about the "Individual in Society."


Elder, Glen H., Jr. (California). Family structure and educational attainment: A cross-national analysis. Amer. sociol. Rev., 1965 (Feb.), 30, 81-96. - The data for the study became available as a by-product of a study of political behavior with interviews from approximately 1,000 adults, ages 18 and over, in U.S., Great Britain, West Germany, Italy, and Mexico. Parental dominance in adolescence was negatively associated with the probability of reaching secondary school in all five nations. Other factors such as social class also were operating.

Friedenberg, Edgar. (California, Davis). New value conflicts in American education. School Rev., 1966 (Spring), 74, 66-94. - The author (whose incisive mind CMG encountered at Chicago in the 1940's) joins Jules Henry, Paul Goodman, and others who are disturbed by the way the public school system does "an extraordinary job of moulding American Youth to fit the culture of which we are all a part." NB. The issue has five articles on "Values and Education."

Friedlander, Bernard Z. (Western Reserve). A psychologist's second thoughts on concepts, curiosity, and discovery in teaching and learning. Harv. educ. Rev., 1965 (Winter), 35, 18-38. - A thoughtful discussion topics which form "the most crucial area of the educational revolution." References to Bruner, Ausubel, Harlow, Berlyne, White, Skinner. Kagan and Gagne indicate the scope of conceptualization in this paper. There also are warnings for the educator.

Gardner, R.C. & Lambert, W.E. Language aptitude, intelligence, and second-language achievement. J. educ. Psychol., 1965 (Aug.), 56, 191-199. - A factor analysis of 24 variables (N = 96 high school students) yielded seven factors, four of which were indexes of second language skills. The authors concluded that present-day measures of intelligence are relatively independent of both language aptitude and 2nd-language achievement.


Gottlieb, David & Hodgkins, Benjamin. College student subcultures: Their structure and characteristics in relation to student attitude change. School Rev., 1963 (Autumn), 71, 266-289. - The research stems from the thesis that previous studies had tended to ignore social diversity in the student population and demonstrates that subcultures influence student attitudes and values. They realize that their study has neglected the influence of the faculty. This issue of the journal is devoted to "Social Climates in School and College."
Green, Thomas F. (Syracuse). Teaching, acting, and behaving. *Harv. educ. Rev.*, 1964 (Fall), 34, 507-524. "The widely known and accepted dogma that the aim of teaching is to change behavior is both patently false and dangerously misleading." "The aim of teaching is... to transform behavior into action... "the introduction of principle into a person's behavior may... change the basis of a person's behavior and... introduce the critical capacity to consider whether one ought to act differently."

Hickerson, Nathaniel. *Education for alienation*. Englewood Cliffs, N.J.: Prentice-Hall, 1966. Schools as mirrors of society; IQ as a measure of "innate" intelligence; formal and informal techniques of alienation (e.g., the "reading group"); curriculum for the economically deprived; proposals for reform.


Howard, Elizabeth Z. (Chicago). Needed: A conceptual scheme for teacher education. *School Rev.*, 1963 (Spring), 71, 12-26. - The whole issue is devoted to "Teaching: A profession and a process." Figure 1 on p. 14 of this article presents an intriguing conceptual scheme for professional teacher education.

Iscoe, Ira (Texas). I told you so: The logical dilemma of the bright underachieving child. *Psychol. in Schools*, 1964 (July), 1, 282-284. - A value illustration of a clinical approach which provides a reasonable explanation of intra-individual behavior and a means of coping with "problems of living" (the task of a mental health consultant on facilitating the effectiveness of the educational encounter).

Iscoe, Ira; Williams, Martha; & Harvey, Jerry. Age, intelligence, and sex as variables in the conformity behavior of Negro and white children. *Child Develpm.*, 1964 (June), 35, 451-460.

Jackson, Philip W. (Chicago). Alienation in the classroom. *Psychol. in Schools*, 1965 (Oct.), 2, 299-308. - Signs of alienation are devaluation of the "intrinsic" and "extrinsic" rewards operating in the school environment (the student "doesn't care")... "The student who does not accept personal responsibility for his achievement status is the educational equivalent of society's alienated man." Prevention and remediation of alienation involve a clarification of student roles and of academic expectations. He refers to an Intellectual Achievement Responsibility Questionnaire (IAR) employed with primary grade children by Crandall, Katoosky (Child Develpm., 1962, 33, 643-661).

Jackson, Philip W. (Chicago). The conceptualization of teaching. *Psychol. in Schools*, 1964 (July), 1, 232-242. - Evaluate this "functional analysis" by reference to Homans (1964), to Goldschmid (1966), and to McGirre's concepts of "inevitable human encounters" and the "educational encounter." Jackson identifies six teaching functions (control, search, display, refine, stabilize, plan) and examines several propositions; e.g., "there may be teaching without learning," "the distinction between teaching and telling," and the relation between teaching and learning in terms of "the operation was a success but the patient died." The references in the footnotes are invaluable; particularly, Gilbert Ryle, (Oxford), *The concept of mind* (Hatchinson or Barnes & Noble, 1949).
Keppel, Francis. The necessary revolution in American education. New York: Harper & Row, 1966. $5.95. *"A valuable account of what is happening in and to American education today by one of the men who made it happen... A look toward his grandson's generation... "Stability for him will include intellectual change."

Kneller, George F. Educational anthropology: An introduction. New York: Wiley, 1965. - This little book provides an admirable introduction for the educator not only of the individual in society but also of the practices of education in cultural perspective: cultural integration vs. cultural diversity, enculturation, discontinuity, three views of culture--culture, personality, and education; socialization.


Landes, Ruth. Culture in American education. New York: Wiley, 1965. Describes an experiment in teacher education wherein the cultural approach is employed to prepare teachers-to-be for coping with cultural diversity, for reviewing and making more realistic the standard educational program and objectives set by the dominant upper-middle class families who control American communities. The cultural approach to educational problems puts a premium upon intellectual outlooks and social heritages of differing human groups rather than upon physical appearances and ratings derived from test behaviors.

Lindvall, C.M. (Pittsburgh). The task of evaluation in curriculum development projects: A rationale and case study. School Rev., 1966 (Summer), 74, 159-167. - (1) Does this innovation-- (2) in the situation with which we are concerned-- (3) do what is desired-- (4) better-- (5) than alternatives?

McGuire, Carson. (Texas). Motivation, personality, and productive thinking. In Mary Jane Aschner & C.E. Bish (Eds.), Productive thinking in education. Washington, D.C.: National Education Association, 1965. Pp. 180-190. HTRP and MHTE studies indicate "that an outgoing optimism, creatively intelligent independence, and a certain amount of self discipline are essential elements of emotional learning as well as of freedom to become a creative or talented individual. Of course, some persons develop certain culturally valued talents in order to compensate for perceived deficiencies or feelings denied to awareness. ... In general, the ineffective person not only has conflicting feelings and little foresight but also exhibits a lack of effective achievement--often accompanied by some kind of alienation syndrome and/or antiacademic attitudes. (p. 189).

McGuire, Carson. Research and development in teacher education at The University of Texas. Psychol. in Schools, 1964 (Jan.), 1, 83-86. - A brief account of the operations and some outcomes of the MHTE demonstration-research program... basic model for the process of intervention in teacher education... three dimensions of mental health (relaxed outgoing optimism, creatively intelligent autonomy, self-disciplined stability)... six areas of competence in teaching behavior (personal integrity, pupil relationships, classroom management, academic competence, teaching style, professional identification). N.B. A limited number of copies are still available upon request for R&D staff members at S.H. 308.

Mathis, Claude. (Northwestern). Is theory necessary for educational research? *Psychol. in Schools*, 1965 (Jan.), 2, 3-9. - The Associate Editor of this journal and Associate Dean of the Graduate School at Northwestern University (Ph.D. 1956 from UT in Ed. Psy.) argues toward eight observations about the role of theory in education.

Millman, Jason & Johnson, Mauritz, Jr. Relation of section variance to achievement gains in English and Mathematics in grades 7 and 8. *Amer. educ. res. J.*, 1964 (Jan.), 1, 47-51. - The large-scale study (made possible by the New York State Education Department's use of punched cards containing test data and identifying information for 86 school systems) permitted the use of a large number of schools and teachers which provided for a sampling of effects that might be attributed to teachers and to locale. Conclusion: "whatever the potentialities may be for increasing achievement through narrowing the ability ranges of classes, such improvement is apparently not taking place."

Newmann, Fred M. (Harvard). Adolescents' acceptance of authority: A methodological study. *Harv. educ. Rev.*, 1965 (Summer), 35, 303-325. - This article is based upon a doctoral thesis and is a model of concise presentation... Sample items and categories for the Authority Justification Interview (AJI) are presented along with sample data, results, interpretations, and a conclusion.


Perkins, Hugh V. (Maryland). A procedure for assessing the classroom behavior of students and teachers. *Amer. educ. res. J.*, 1964 (Nov.), 1, 249-260; continued in "Classroom Behavior and Underachievement," *Ibid.*, 1965 (Jan.), 2, 1-14. - The first article describes the two instruments; namely, Student Categories and Teacher Categories. Collection of data, reliability and validity, as well as tables and comparative graphs are presented. Note the method of determining "und ersachievers" and the factor loadings of U and A students for each variable in the common factor extracted from analyses of the various kinds of data. The results parallel those obtained by Pauline Sears (1963) in that A's spend more time in social, work-oriented interaction with peers than do U's, but not in reading or writing or in high activity.

Phillips, Beeman N. (Texas). Conflict theory and sex differences in the CMAS. *Amer. educ. res. J.*, 1966 (Jan.), 3, 19-26. - The last of Professor Phillips' studies based upon MRPD data. Note the manner in which conflict theory is related to the CMAS test-taking situation and the rationale for assuming which items are the "best indicators of anxiety". Tables are employed to present the results of a factor analysis of items, to support the assumptions.
about sex differences and to present a sex-by-social class analysis of variance in each of two sets of "factor scores." Apparently scoring five places (5-1) from "strongly agree" to "strongly disagree" reveals sex and social class differences which were not uncovered in the simple discrimination act, "agree" or "disagree" (1-0 scoring).

Rippey, Robert M. (Chicago). A study of differences in achievement due to personality differences in four classroom environments. *School Rev.*, 1965 (Winter), 73, 374-383. - The author used four tests to measure student preference for control, or structure, and four other tests to estimate student's preference for inclusion and affection. Classroom environments were classified as (1) errorless-teacher, dialectical teacher, errorless-materials, dialectical-materials. In addition to this report of an experiment, the issue has "Three Papers on Intelligence" which are most timely. The three authors (Ingle, Kessler, Paten) (a) tend toward the view that biological differences in intelligence alone are not powerful enough to generate the separation of persons in an educational system, and (b) that the standardized intelligence test may actually be invalid unless viewed as "a measure of a set of developed abilities" (Vernon, 1960).


Siegelman, Marvin. (CCNY). Evaluation of Bronfenbrenner's questionnaire for children concerning parental behavior. *Child Dev.*, 1965 (March), 36, 163-174. - Apparently the BPB scale yields three scales; namely, (1) "Loving," (2) "Punishment," and (3) "Demanding." The fifteen variables built into the scale (3 items for each) are reproduced upon page 165.

Suppes, Patrick (Stanford). Modern learning theory and the elementary-school curriculum. *Amer. educ. res. J.*, 1964 (March), 1, 79-93. - The intensive accelerated program in mathematics ... the necessity of technological methods to provide overt correction procedures... extent of transfer to new situations as a measure of learning... the computer-based laboratory for learning and teaching at Stanford... response learning as a criterion of learning.

Suppes, Patrick & Hansen, Duncan (Stanford). Accelerated program in elementary-school mathematics--the first year. *Psychol. in Schools*, 1965 (July), 195-203. - Note the manner in which the report states succinctly what the project set out to do, the selection of participants, the nature of the fresh mathematics program and procedures employed with children. The project undertook not only to evaluate acquisition of mathematical concepts but also concomitant personal and social development of project students.

Tyler, Fred T. (California, now Dean at the U. of Victoria). Teaching machines, programs, and research on learning. *School Rev.*, 1963 (Summer), 71, 123-150. - The man who, along with the late David Russell, introduced CMcD to graduate work in Educ. Psychol. at UBC in Canada has a great deal of wisdom as well as scholarship packed into this evaluative article.

Veldman, Donald J. & Peck, Robert F. (Texas). Student-teacher characteristics from the pupil's viewpoint. *J. educ. Psychol.*, 1963, 54, 346-355. - Five factors were extracted from evaluations of 554 student-teachers on a 38-item Pupil Observation Survey: I Friendly, cheer-
ful, admired; II Poised, knowledgeable; III Interesting, preferred; IV Strict control; V Democratic procedure. The same factors appeared across three semesters and relations to other variables were found.

Veldman, D.J.; Peck, R.F.; & McGuire, Carson (Texas). Measuring the value systems of educators. J. educ. Psychol., 1961, 52, 330-334. - Factor analyses of 50 ratings made by each of four judges on each of 53 female sophomores in a population of pre-professional students in teacher education, the analyses being based upon responses to five instruments (including PSC and TAT projective devices), revealed the rater's "personal constructs" (Kelly, 1955) and their conceptions of the rubric "mental health." The analyses indicated three dimensions held in common; namely, Creatively Intelligent Autonomy, Emotional-Judgmental Restraint (affectivity?), and Peer-Oriented Sociability. The approach (I technique) could be employed to any kind of judgments to uncover individual construct systems.

Wexler, Nancy E. & Mishler, Elliot G. (Harvard). Scoring and reliability problems in Interaction Process Analyses: A methodological note. Sociometry, 1966 (March), 29, 28-40. - Bales' IPA system of content analysis has been used widely in studies of group process. Probably, people in R & D who are developing a way of analyzing motion pictures of the teacher in the classroom should be getting out "basic papers" so that articles like this can be flowing from Texas.

Wright, Benjamin & Sherman, Barbara (Chicago). Love and mastery in the child's image of the teacher. School Rev., 1965 (Summer), 73, 89-101. - The two authors continue their analysis of sociocultural factors impinging upon students' perceptions of their teachers. The Leader-Tyant Rating Scale is given in an Appendix on page 101.

Zach, Lillian (Yeshiva). Current thoughts on intelligence tests. Psychol. in Schools, 1966 (April), 3, 116-123. - A valuable statement to supplement and clarify those made by Hunt (1961) and McNemar (1964). "Binet made no claims for measuring a fixed, innate, culture-free determinant of behavior. His original intent to select children for special class placement was realized"... "psychologists reinforced their belief in the fixation and pre-determination of intelligence by using the IQ to indicate native ability"... Dyer (Teach. Coll. Rec., 1960, 61, 394-403) suggested that we concentrate on improving the environments of the culturally deprived rather than changing our tests. ..."... "The achievement test is a sampling of what a person has learned and, as such, is concerned only with the content aspect of intelligence."
Behavioral Science Memorandum No. 10

McGuire, Carson

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BSR Memo No. 10

PAGINATION, ETC

1-20

ABSTRACT

BSR No. 10 was the initial venture into annotating selected books, articles, and monographs for the guidance of busy instructors responsible for teacher education. The responses to the annotated bibliographies have been positive. Apparently so sort of handbook for learning through guided discovery is a possible means of orienting college professors and students in teacher education to the realization that the major objective in the educational encounter is not "soaking up" information for later "selective regurgitation" in examinations but the acquisition of the intellectual capabilities necessary to relate new information as it develops to the underlying principles of a field of study. (137 annotated entries).
Addenda to Behavioral Science Memorandum No. 10

Human Development and Education

Bibliographies

The division of the July Memorandum into two sets of references, (I) "Child and Human Development" and (II) "Human Development and Education," was a somewhat arbitrary division which permitted early publication of pages 1 to 12 and the further editing of entries appearing on pp. 13-20. Many readers will want to prepare their own sets of references (perhaps with different annotations) organized under other headings; e.g., "The Teaching-Learning Process," "Learning and Cognition," "Research Methodology," or a special set of references for an article or essay on a particular topic. The Addenda, issued from time to time, as new annotated cards are accumulated, are to be dated and numbered with Roman numerals (I, II, III, ...).

I (September 1, 1966).


Arensberg, Conrad N. and Kimball, Solon T. Culture and community. Harcourt, Brace & World, Inc., 1965 ($3.95). - Paying tribute to W. Lloyd Warner for his original work, the authors organize materials they have published previously into seventeen chapters which reflect the dialogues among persons employing the community-study method in cultural anthropology (or comparative sociology) and their critics in the behavioral sciences. The reviewer (CMcG) agrees with their contention that community is more than a residential grouping when they state, "We believe the community to be, indeed, a master institution or master social system; a key to society, and a model, indeed perhaps the most important model, of cultures. We are convinced that the community has shown itself, in the research of recent years, to be a main link, perhaps a major determinant, in the connections between culture and society."

Bandura, Albert and Walter, Richard. Social learning and personality development. New York: Holt, Rinehart, & Winston, 1963. This concise 300-odd page volume, like an earlier book by Dollard & Miller (1958), advances a theory of personality and the modification of behavior. Their socio-behavioristic approach emphasizes the process of imitation (observational learning) wherein vicarious reinforcement (i.e., what happens to the model) and the responses of socializing (cultural) agents to the learner's attempts to approximate and "take over" the acquired patterns of behavior both are important. Effective social learning seems to require adequate generalization and sharp discrimination. Social-learning approaches tend to reject "stage theories" of personality development and observable behavior. Marked changes at any
given age are explained in terms of abrupt alterations in social-training and relevant biological variables or environmental settings. "Although intellectual development is highly modifiable through environmental manipulations (Hunt, 1961), there can be little doubt that genetic factors set some limits on the development of an individual's intellectual capacities ..." (p. 28). Real-life and symbolic models necessary for observational learning are central to theories of "imitation," "identification," and "role-playing." Aggression, dependency, and behavior modification are explained in terms of concepts developed earlier in the book.

Barron, Frank. The psychology of imagination. *Scient. Amer.*, 1958, 199, 151-166. - Creative individuals reject demands of their society to surrender individuality because "they want to own themselves totally and because they perceive a shortsightedness in the claim of society that all its members should adapt themselves to a norm for a given time and place" (p. 163).

Beadle, George and Muriel. *The language of life: An introduction to the science of genetics*. New York: Doubleday, 1966. $5.95. - A lucid account of modern genetics which is concerned with the internal organization of chromosomes and genes, the structure of giant molecules of the nucleic acids DNA and RNA, and the molecular "code" which controls body chemistry. (pp. 42-45), some of the unsolved problems of biology, and a look into the future.


Bennet, Chester C. (Boston U.). *Community psychology: Impressions of the Boston Conference on the Education of Psychologists for Community Mental Health*. *Amer. Psychol.*, 1965 (Oct.), 20, 832-835. **that community psychology apply the scientific method, rather than the scientific findings, of psychology to community problems... affiliation of community mental health with public health and education rather than psychiatry.


Brown, Roger. New direction in attitude change. In *New directions in psychology*. New York: Holt, Rinehart & Winston, 1962. - The author explores three models of attitude change; namely, (1 Congruity--Osgood, 2) Dissonance--Festinger, and 3) Balance--Abelson and Rosenberg. In summarizing an involved example of dissonance, the author concludes, "... to criticize a theory that works even roughly on so complex a problem is to set an absurdly high standard for social psychology," (p. 59). The article is well illustrated with 10 relevant and clear figures. 38 references and 3 selected readings.

Brown, Roger and Bellugi, Ursula (Harvard). *Three processes in the child's acquisition of syntax*. *Harv. educ. Rev.*, 1964 (Spring), 34, 133-151. Language is aided in development by the verbal interchange between child and adult, particularly with the mother. Adults not only tend to
imitate children, but also to expand so that incomplete sentences (which appear as incorriguous to adults) are extended to include the necessary parts of speech to make the utterance syntactically correct. Expansion (adult) encodes the aspects of reality so as to make the reproduced utterances of the child appropriate. The three processes: 1) imitation and reduction, 2) imitation and expansion, and 3) induction of latent structures.

Bruner, Jerome S. After John Dewey, what? Saturday Review, 1961 (June 17), 44 (24), 58-59, and 76-78. - By giving shape and expression to our experience, education can be the principal instrument for the enterprise of the mind. A half-century of work in the psychological sciences indicates that mental health is only a minimum condition for the development of the mind. Clearly, the powers of the mind increase with their exercise. Bruner writes, "Adjustment is too modest an ideal, if it is an ideal at all. Competence on the use of one's powers for the development of individually defined and socially relevant excellence is much more to the point." He also writes, "The tragedy of mental illness is that it so preoccupies the person with the need to fend off realities with which he cannot cope that it leaves him without either the nerve or the zest to learn" (p. 59). "The organizing ideas of any body of knowledge are inventions for rendering experience economical and connected... that experience... is filtered through the programmed readiness of our senses... the structure of knowledge... brings order to disconnected observation... makes possible the opening up of new realms of experience."

Chapanis, Natalia P., & Chapanis, A. Cognitive dissonance: Five years later. Psychol. Bull., 1964, 61, 1-22; Reprinted in E.A. Southwell & M. Merbaum (Eds.), Personality: Readings in theory and research. Belmont, Calif.: Wadsworth, 1964. Pp. 412-438. A highly critical evaluation. See Table 1 and the criticism under "inadequate design and analysis" (Table 2) as well as the concluding "overall evaluation." They ask, "Is it really possible to reduce the essentials of a complex situation to just two phases?" (i.e., two discrepant statements). The theory is appealingly simple, but the experiments to demonstrate its validity leave one asking many questions. Nevertheless, the theme returns in much of psychological literature under such headings as congruity, balance, and psychological homeostasis (Stagner, 1961). An attempt at rebuttal of the critique has been made by Irwin Silverman. In defense of dissonance theory, reply to Chapanis and Chapanis, Psychol. Bull., 1964, 62, 205-209.

Clayton, Thos. E. Teaching and learning: A psychological perspective. Englewood Cliffs, N.J.: Prentice-Hall, 1965. - This slim paperback could have been a valuable volume if the author had read and reconciled his own ideas with some of the current literature available in the NSSE yearbooks and the SRCD monographs, as well as the books and journal articles included in BSR Memos Nos. 10 and 12. For example, the maturationist view of readiness is retained (pp. 80-81); no mention is made of competence (White, 1959) or epistemic curiosity (Berlyne, 1960) in the discussion of motivation; Harlow's work upon learning sets (1949) is disregarded; and no attention has been paid to Bruner's The process of education (Harvard, 1960). This kind of a volume not only could present some of the earlier ideas from psychology pertinent to the educational encounter (which it does) but also the author could orient persons concerned about the teaching-learning process to the emergent zeitgeist of education and provide some annotated references to be consulted by the reader. Too many contemporary texts and collections of readings suffer from the defects demonstrated in this volume.
Conger, John J., & Miller, Wilbur C. (with the Staff of the Behavior Research Project at Denver, Colorado). Personality, social class, and delinquency. New York: Wiley, 1966-Project supported by NIMH beginning in 1956 on "Early Identification of Maladaptive Behavior." The design of the research could be questioned since delinquent and nondelinquent Ss were matched according to indicators to socioeconomic status instead of employing random sampling. Nevertheless, a wide range of behavioral and psychological measures were employed (see the Appendices for distributions, excerpts from the School Teacher's Manual for ratings, and the Objective TAT). The results raise questions regarding current theories of maladaptive or deviant behavior and provide ideas for further research.

Emmerich, Tom. Continuity and stability in early social development. Child Developm., 1964, 35, 311-332. - A study of the behavior of 38 preschoolers over a two-year period. The active-passive dimension in interpersonal behavior becomes more relevant with time, a friendly-hostile dimension decreases in importance and introversion-extroversion is the most stable behavioral dimension. Data were not analyzed separately for boys and girls.


Galanter, Eugene (Penna.). Contemporary psychodynamics. In New directions in psychology. New York: Holt, Rinehart & Winston, 1962. - The author discusses 4 typical problems of the human sensory system, which constitute the "core" (p. 92) of psychophysics which is concerned with the relation of the physical environment and the mind: namely, 1) detection, "What is it?", 2) recognition, "Is it what I want?", 3) discrimination, "Is this different from that?" and 4) scaling, "How much of X is there?". Galanter contends that the "response structure of the person remains constant under the flux of physical events" (p. 93). The article concerns itself with the act of responding instead of the receptors.

Gallagher, James J. Productive thinking. In Hoffman, J.L. and Hoffman, Lois W. (Eds.), Review of child development research. New York: Russell Sage Foundation, 1964. Pp. 349-382. Productive thinking represents the result of the individual's operation upon information from internal or external sources in order to change it into some different product... problem-solving, analytical and logical dimensions, as well as creative thinking. (349)

Glasser, Tom M.D. Reality therapy: A new approach to psychiatry. (with a Foreword by O.H. Mowrer. New York: Harper & Row, 1965. Responsibility is defined as the ability to fulfill one's needs in a way that does not deprive others the ability to fulfill their needs. We learn responsibility through involvements with responsible fellow human beings. Reality therapy requires intense personal involvement, facing reality and rejecting irresponsible behavior and learning more effective ways of behaving. The author does not conceptualize in terms of imitative identification with models or cultural agents; neither does he concern himself directly with emotionality per se or cognitive structures and symbol systems. A psychologist could conceptualize his foundations for a theory of learning and relearning and test derived hypotheses.
Goslin, David A. The search for ability. New York: Russell Sage Foundation, 1963. Volume 1 of a series on the social consequences for ability testing—defined as the use of standardized tests for the measurement of intelligence, aptitude, and achievement. There are two contradictory conceptions of human abilities (Goslin); one strongly influenced by a belief in genetic factors and inherited abilities (the "mining" approach to identification of talent), the other viewing ability as a consequence of learning experiences in a rich and stimulating environment (the "agricultural" approach to the development of talent). As Hunt (1961) and Cronbach (1965, pp. 111) have emphasized, Americans are beginning to realize that "intelligence is learned" and that "this learning can be cultivated." Part One is devoted to "Ability Testing in American Society." Part Two moves on to "Ability Tests and Prediction." Part Three considers "The Need for Research on the Social Consequences of Testing." Goslin concludes "Most tests... test not only the individual, but also his intellectual environment and those who are responsible for it" (pp. 187-188). "Ability tests as they are being used may, however, have a cumulative selective effect on the kinds of abilities and aptitudes available in the manpower pool of the society as a whole" (p. 189).


Harlow, Harry F. The formation of learning sets. Psychol. Rev., 1949, 56, 51-65. - This article which does not seem to be in any current book of readings, was probably the paper which at last long opened the eyes of many professional people to the fact that intelligence is learned and, furthermore, that this set to learn (or "learning how to learn") can be cultivated under suitable conditions. Hunt (1961, p. 77) says that Harlow's "learning sets" may be regarded "as analogues of strategies for information-processing acquired by rhesus monkeys from repeated experiences with a given kind of problem." They became aware that there is a meaningful answer to look for. Once these learning sets are acquired, they supply basis for insightful problem solving. Hunt in his thorough analysis of Harlow's contribution (1961, pp. 77-83), reports upon two 1956 dissertations which showed that mentally retarded children required more blocks of problems for them to acquire a criterion of perfection in learning-sets than do so-called "normal" children. Apparently stimulus-deprivation (Dennis, 1960) damages an individual's facility in acquiring learning sets.

Harlow, Harry F. The heterosexual affectional system in monkeys. Amer. Psychol., 1962, 17, 1-9; also see "The Nature of Love." Amer. Psychol., 1958, 13, 673-685. - The earlier experiments, wherein some monkeys were reared with "mon mothers" and others with "manikin mothers," demonstrated the role of the mother in the process of learning to love and express affection. Monkeys reared with the terry cloth "mothers" developed quite well until the time to find mates and become parents. Only as a consequence of the patience and persistence of two experienced breeding males did four of them eventually become mothers. The four who did, however, alternately ignored and abused their infants. In six months of living together, they never showed affection toward their young. Six months or more of isolation produced severely disturbed monkeys, incapable of forming social or sexual relationships. Recent findings support the conclusion that a healthy relationship with others of one's own age is as important as a warm relationship with one's parents. All the young monkeys who had the opportunity to
play with other little monkeys became socially "normal" monkeys; those deprived of contacts were unable to interact normally with other monkeys, socially or sexually.

Harvard Educational Review. Breakthroughs to better teaching, Cambridge, Mass.: The Review, Harvard University, 1965. This valuable volume is granted to subscribers of the Review, $6 for 1 yr. Contents include selected articles by Anderson and Bunka (Teacher evaluation: Some problems and a proposal, 1-22); Shaplin (Practice in teaching, 23-49); Skinner (Why we need teaching machines, 50-71); Resnick (Programmed instruction and the teaching of complex intellectual skills: Problems and prospects, 72-104); Berry (Pretending to have, or to be, a computer as a strategy in teaching, 105-123); Bruner (The act of discovery, 124-135); Friedlander (A psychologist's second thoughts on concepts, curiosity, and discovery in teaching and learning, 136-157); Ennis (A concept of critical thinking, 157-187); Scheffler (Philosophical models of teaching, 188-200).

Harvard Educational Review. Language and learning. Reprint of a special edition, 1964 (Spring), 34, 2. Contents include: Brown and Bellugi (Three processes in the child's acquisition of syntax, 133-151); Lennenberg (Language disorders in childhood, 152-177); Carroll (Words, meanings and concepts, 178-202); Joos (Language and the school child, 203-210); McDavid (Mencken revisited, 211-225); Mainzer (Geography and the American language: An approach to literacy, 226-245); Postal (Underlying and superficial linguistic structure, 246-267); Gleason (What grammar?, 267-281); Bolinger (Around the edge of language: Intonation, 282-296).

Hess, E.H. (Univer. of Chicago). Ethology. In New directions in psychology. New York: Holt, Rinehart & Winston, 1962. - A detailed discussion of Ethology, its history, concepts, methods and areas of research. Of special interest is the section on Imprinting (pp. 224-246). The experiments of Hess and associates, yielded results which distinguish imprinting from other forms of learning (especially association learning). Early experiences can have permanent effects, and certain behaviors (e.g., imprinting) are so persistent and resistant to change as to defy satisfactory explanation by conventional laws of learning. Color and audition appear to be more effective in imprinting, which tends to have "critical periods" (p. 230), i.e., particular times in the life cycle when imprinting will be most durable. Massed experiences and rewards were shown to be highly effective in imprint learning, and the more effort expended by the learner to achieve the reward, the stronger was the imprinting. Primacy of experience, rather than recency, appears to be more effective in imprint learning. The administration of punishment or painful stimulation appear to have a positive effect on imprint learning (avoidance not developed). The article closes with a discussion of the ethological viewpoint on the learning processes and a projection for the future. 162 references and six selected readings.

Hollander, E.P. & Hunt, R.G. (Eds.). Current perspectives in social psychology. New York: Oxford Univ. Press, 1963, paperback $4.50. - Excellent articles pertinent to the study of human development by McLeod (phenomenological analysis), Bruner (perceptual readiness), White (concept of competence), Bronfenbrenner (model for analysis of parent-child relationships), Sears (theoretical framework), Osgood (nature of meaning), Festinger (theory of dissonance), Heider (perception of others), Crutchfield (conformity and character). *This book of readings probably will be useful for 385.2 (individual in society) and 385.3 (developmental-social psychology) as well as the doctoral qualifying examinations.
Holt, Robert R. Individuality and generalization in the psychology of personality: An evaluation. J. Pers., 1962, 30, 377-402. - The issues created by the proponents of the polar positions "bear only marginal resemblance to the real problems of science."

Holtzman, Wayne H. Cross-cultural research on personality development. Human Development (formerly Vita Humana), 1965, 8, 68-86. - Recent studies are reviewed and the Austin-Mexico City project is described in some detail. Attention is directed to the measurement and control of cross-cultural variables, the systematic use of subcultural variation, and the necessity of semantic equivalence in techniques employed cross-culturally. The A-MC cross-cultural project employs cognitive, perceptual, and personality instruments with 800 children annually over a six-year period. Parental interviews and attitude scales on value orientations and child-rearing practices have been obtained once from each family.

Hunt, J. McV. (Illinois). Traditional personality theory in the light of recent evidence. American Scientist, 1965, 53, 80-96. **Questions the belief that personality traits are the major source of personality variance... advocates the shifting of attention from traits to interactions among people... look for behavior in situationally-defined roles.

Kagan, Jerome (Fels, Harvard). Acquisition and significance of sex typing and sex role identity. Review of Child Development Research, 1964, 1, 137-168. (Russell Sage Foundation). Identification as a basis for sex-role identity; learning of sex-role behaviors; physical maturation and class-typed expectations in relation to sex-role behavior; relation to intellectual mastery and sexuality; the motive to match one's behavior to a standard; "Expression of sexual behavior, verbal aggression, or academic mastery sometimes may be an intermediate act that serves a more powerful motive than sex, aggression, or achievement; namely, the desire for congruence between an ideal representation of the self and one's every day behavior." See Seward (1963) for a similar statement from another frame of reference.

Kagan, Jerome (Harvard). American longitudinal research on psychological development. Child Development, 1964 (March), 35, 1, 1-32. - "Contains descriptions of the sample, methods, and goals of 10 longitudinal projects that have been active for a long period of time."


Kohlberg, Lawrence. Cognitive stages and the early stimulation of the child. Human Development (formerly Vita Humana), 1966, 9, 5-7. - The author notes that "In most sophisticated discussions of stages, they are viewed as more or less useful theoretical fictions... more or less useful abstractions from the developmental process." Nevertheless he has been engaged in a program of research designed to show that cognitive stages are real structures. To do this, he has refined Piaget's concepts and measures into about 20 tests or tasks, administered longitudinally to children aged four to eight, and compared the test behavior to performances on a battery of the usual psychometric instruments employed to assess general and special intellectual abilities. Other papers given at the 25th Anniversary of the Committee on Human Development at Chicago in June of 1965 appear in this issue. Wm. Fowler (Dimensions and directions in the development of affecto-cognitive systems, 18-29) should be read with the Kohlberg article.
Kohlberg, Lawrence (Chicago). Development of moral character and moral ideology. Review of Child Development Research, 1964, 1, 381-431. (SRCD and Russell Sage Foundation). "How does the amoral infant become capable of morality?" ... Moral development as internalization of basic cultural rules indexed by resistance to temptation... character as moral conduct, as super-ego strength, as good habits acquired by training, as ego strength... moral judgment as the use and interpretation of rules in conflict situations... reasons for moral action; dimensions of moral judgment arising from Piaget's stage theory; guilt and other reactions to transgression; relation of moral ideologies to personality integration.

Krumholtz, John D. (Ed.). Learning and the educational process. Chicago: Rand McNally, 1965. $6.50. - This volume, which was summarized in BSR Memo No. 1, is reviewed by Julian Stanley in Amer. Educ. Res. J., 1966 (May), 3, 231-234. The book is listed again to recall the valuable papers by Daniel Berlyne (arousal and subsequent "relief" of curiosity by discovery methods), Fred Strodbeck (experience in use-of-words-for-material-welfare for the LC child), Walter Loban (longitudinal study of language development), Jerome Kagan (the impulsive-reflective dimension of cognitive behavior in relation to the educational encounter), and John Carroll (a model for school learning to be employed in curricular evaluations).


Loevinger, Jane (Washington U.). The meaning and measurement of ego development. Amer. Psychol. 1966 (Mar.), 21, 195-206. **(1) to distinguish SELF from NONSELF; (2) learning to control impulses; (3) opportunistic response to rules; (4) conformist response to time; (5) Autonomous coping with moral issues; (6) Integrated reconciliation of conflict demand. The hierarchic model of the ego development construct asserts one characteristic level for each person (horizontal decalage).

Maier, R.W. The changing ethnic fabric of the metropolis. In Chandler, B.J., et al (Eds.), Education in urban society. New York: Dodd, Mead & Co., 1966. - A lucid and current analysis of the social structure of any American city. The author discusses three new minority groups: namely, 1) the Spanish-speaker; 2) the recently urbanized white; and 3) the recently urbanized Negro, who he calls the most visible minority. The reviewer (GTR) felt that current social upheaval is more clear after reading this article. The entire book is a good general overview of education, but Maier's chapter was felt to be the most valuable.

Maier, Henry W. (U. Washington). Three theories of child development. The contributions of Erik H. Erikson, Jean Piaget, and Robert R. Sears, and their applications. New York: Harper & Row, 1965. A professor of social work sets forth Erikson's psychoanalytic theory, Piaget's cognitive theory, and Sears' neobehavioristic account. He discerns seven major differences; nevertheless, he believes their findings are mutually compatible with the reservation that cognitive development remains asexual for Piaget but not the other two. Then he differentiates four main therapeutic strategies for the "helping process" and considers the three theories in practice. This book provides a useful overview but is no substitute for the original works which are all gathered together as references in the Appendix.
Mandler, George (Univ. of Toronto). Emotion, In New directions in psychology. New York: Holt, Rinehart, & Winston, 1962. - A definitive article on a psychology of emotion, including history, past and current research and projections. Emotion represents a collection of observations, bounded intuitively and historically. Three interrelated classes are of psychological interest: namely, 1) environmental or stimulus events, 2) physiological, specifically visceral events, and 3) verbal and motor behavior. A fourth class, individual differences, is relevant to all behavior. The production of emotional behavior is a two stage process: 1) activation and 2) selection of emotion. There are two major dependent variables in the emotional complex: namely 1) non-verbal, symptomatic of visceral discharge (blushing, flight, etc.) and 2) verbal, which varies from gross activity to fine grained analysis of introspective reports. Verbal emotional behavior is referential behavior, i.e. phrases that ostensibly refer to an internal somatic state, and is under the control of either internal or non-organismic events (outside the organism), but the controls are not mutually exclusive. Non-verbal behavior is either respondent or operant (instrumental). Respondent is occasioned by known stimuli (Pavlov) whereas operant behavior is affected by reinforcement operations following occurrence (Skinner). Emotional stimuli are either invariant (unlearned) conditions, or variant conditions which are largely unknown. The influence of individual differences on emotional behavior: 1) a perceived particular environmental situation, 2) different responses from different individuals, 3) people perceive the actions of their viscera in different ways, and 4) emotional expression varies from person to person. (63 references)

Meyers, C.E. & Dingman, H.P. The structure of abilities at the preschool ages: Hypothesized domains. Psychol. Bull., 1960 (Nov.), 57, 514-532. - Table 1 (Illustrative current ability measures with notations on item selection and age-scoring) and Table 4 (Factors hypothesized in seven domains with related information, including pertinent bibliography) are invaluable to orient a reader to the situation of ability testing at the infant and preschool years. A subsequent report, of Meyer, et al, Monogr. Soc. Res. Child Develpm., 1964, 29, No. 5 (Serial No. 96), however, failed to support the "maturationist" views advanced in this preliminary survey of preschool abilities: "The principle of increasing differentiation with growth" was not supported.

Miller, James G. Living systems: Basic concepts. Behavioral Science, 1965 (July), 10, 193-237. The editor of the journal sets forth the basic principles of his "general systems behavior theory." The October 1965 issue carries articles in "Structure and Process" (337-379) and "Cross-level Hypotheses" (380-411) to be set forth in a forthcoming book entitled Living Systems. Dr. Miller was at Chicago in the 1940's and moved to the Mental Health Research Institute, The University of Michigan. This journal has valuable sections in each quarterly issue upon "Computers in Behavioral Science" and "Abstracts of Current Literature with Interdisciplinary Implications."

Osgood, Charles E. (Illinois). Cognitive dynamics in the conduct of human affairs. Publ. Opin. Quart., 1960, 24, 319-340. - Postulating individual differences in tolerance levels for inconsistency, one may speak of "keeping inconsistencies within the tolerance level of the individual."

Parsons, Talcott & Shels, Edward A. (Eds.). Toward a general theory of action. Cambridge, Mass: Harvard Univ. Press, 1951. Harper Torchbook, 1962. (Paper). TB 1083, $2.95. Fundamental categories (3-29); Value standards, pattern variables, social roles, personality (Tolman, 343-354); Values and Value-orientations (Kluckhohn, 388-433); Social Behavior and Personality Development (Sears, 465-478); Analysis of Role Obligation (Stouffer, 479-496).
Peck, Robert F. (Chicago, Texas). Family patterns correlated with adolescent personality structure. J. Abnorm. Soc. Psychol., 1958 (Nov.), 57, 347-350. This research report was not generally appreciated until two years after publication; see p. 444 in P.H. Mussen, Ann. Rev. Psychol., 1960, 11, 439-478. The article demonstrates the manner in which the report of an eight-year longitudinal study can be conveyed in a journal article in contrast to a book; see Peck's The psychology of character development (Wiley, 1960). The research in Prairie City supports the view that key elements in the personality depend, at least in part, upon familial emotional and regulatory patterns; e.g. ego strength occurred in association with family life marked by stable consistency together with warm, mutual trust and approval among members. Similarly, elements of personality such as superego strength, generalized friendliness and spontaneity, as well as a hostility-guilt complex could be traced back to probable familial antecedents. (Persons who have the urge to test other kinds of antecedent-consequent propositions or to undertake studies of sources of variation and covariation could use HTPR data to do so since the data are being organized to permit access).”

Piaget, Jean (Geneva). The genetic approach to the psychology of thought. J. Educ. Psychol., 1961 (Dec.), 52, 275-281. The dynamic aspect of thought requires transformations, the ability to disassociate and vary aspects of a phenomenon in order to understand it. Piaget’s presentation implies a predetermined developmental sequence as a central element in his genetic theory of successive changes. Instead of being innately determined, the dynamic structures are shaped by (1) Maturation, (2) physical experience (e.g., sensory-motor explorations preceding language), (3) social interaction, and (4) the equilibration of the internal and external factors. He refers to G. Brunner (Jerome Bruner) who has said that “I have called Disequilibrium what other describe as motivation.” He concludes that “there is no structure (cognition) without an energizer (Motivation) and vice versa.” Note the origin and form of this paper from a person whose ideas cause ferment.


Pincus, Gregory. Control of conception by hormonal steroids. Science, 1966 (July 29), 153, 493-500. The man who initiated the research and testing of progestin-estrogen preparations summarizes what has been learned to date. The oral contraceptives apparently inhibit fertility by means of a physiological process which prevents ovulation with some benefits and no substantial evidence of adverse effects. 19 tables, 2 figures, references and notes.

Pittel, S.M., & Mendelsohn, G.A. Measurement of moral values: A review and critique. Psychol. Bull., 1966, 66 (1), 22-35. A review of the literature of the assessment of moral value which concludes that the weaknesses of existing instruments limit their use in psychological research. “It is important to assess at an individual level the content, strength, and patterning of subjective attitudes of evaluation per se!—Regardless of approval or disapproval of these attitudes by society.

Sanford, Nevitt. (Stanford). Will psychologists study human problems? *Amer. Psychol.*, 1965 (Mar.), 20, 192-202. A stinging critique of "a state of affairs in which the advocates of a particular kind of psychology--psychology-without-a-person--have been able to gain and maintain power through putting across the idea that they are the representatives in psychology of true science... The constructive alternative might be called a "human problems" approach... a human-problems approach calls for a "more general personality-social theory, a theory that is not formal or mechanistic but dynamic... holistic... comprehensive--tangible." A personality or an organized social group conceived as "a system of interacting forces." The problem is "to find out what within the larger system is determining of what, and then to get a purchase on the master processes." There is an argument for comprehensiveness: "Multiple factors are involved, and it is the task of the scientist to find them."

Schneir, K.W. A general model for the study of developmental problems. *Psychol. Bull.*, 1965 (Aug.), 64, 92-107. In reading this valuable paper, remember that the study of development is concerned with changes over time where time per se is not the variable of major concern. Time, however, is a convenient backdrop for projecting changes when measurements of the same (longitudinal study) or similar (method of time-lag) populations (cohorts) are obtained at different times. Tables show the relation of the general model to analyses of variance (ANOVA) designs. Persons who complete the Ed.P. 384 sequence of graduate work upon research methodology, however, will appreciate the fact that the ANOVA designs are merely special cases of applied multiple linear regression.

Shoben, E.J., Jr., & Ruch, Floyd L. (Eds.). *Perspectives in psychology*. Chicago: Scott, Foresman, 1963. Paper $2.75. In their introductory essay, the editors define psychology as "man's effort, through the medium of science, to solve the puzzle of himself." The other six essays orienting the reader to the 14 selections in this slim volume are equally valuable: (1) Habit--the unit of behavior; (2) Energizing behavior--needs and motives; (3) Learning personality traits; (4) The programming of human learning; (5) The assessment of behavior; (6) Two routes of science. The excellent sample of readings includes articles by John W. Atkinson (interplay of aroused motivation to achieve, n Ach, and to avoid failure, anxiety); R.W. White (the concept of competence--effectance motivation); Janet Taylor Spence (TMAS, a measure of anxiety); J.McV. Hunt (reinterpretation of drive-reduction theory, intrinsic motivation, and the incongruity-dissonance principle); Lee J. Cronbach (the experimental and correlational streams and the shape of a united discipline of psychology). One very important omission (except as a reference employed by Cronbach) is H.F. Harlow. The formation of learning sets. *Psychol. Rev.*, 1949, 56, 51-65 (a paper which has opened many Americans' eyes to the fact that intelligence is learned).

Silberman, Charles E. Technology is knocking at the schoolhouse door. *Fortune*, 1966 (Aug.), 74, 120-125 and 198-205. This article reports the mergers taking place involving publishing and electronic corporations so as to compete during the educational renaissance which now is underway to ensure sweeping changes in education. The author predicts that the new educational corporations cannot afford the kinds of errors made by some companies in marketing programmed instruction and some kinds of educational media before R & D studies demonstrated their place and value in the educational encounter. Moreover, the author fulfills the prediction (Beh. Sc. Memo. No. 11, Aug. '66, p. 6) that "writers are going to point to a fresh view of man and his intellectual behavior as the key element in the emergent climate of education," largely as a consequence of abandoning "maturationist" beliefs in predetermined development and fixed intelligence. Silberman expresses the new outlook, or zeitgeist, in
education, "in the contemporary world, the school's failure to educate a large proportion of its students has become morally and socially intolerable." "At the same time there has been a growing realization that the schools are failing white middle-class children, too—that all children, white as well as black, "advantaged" as well as "disadvantaged," can and indeed must learn more than they are now being taught... that [the schools] have been teaching the wrong things and leaving out the right things. Where the schools fell down most abysmally was in their inability to teach youngsters how to learn (i.e., "learning set" in H.P. Harlow, Psychol. Rev., 1949, 56, 51-65), to teach them independence of thought, and to train them in the uses of intuition and imagination." Sections of this provocative and thoughtful article are devoted to "the new concept of intelligence," the individualization of instruction and "reforming the teacher," "discovery methods" and computer-assisted instruction, as well as "what knowledge is worth most."

Smith, B. Othanel, & Ennis, Robert H. Language and concepts in education. Chicago: Rand McNally & Co., 1961. The analytic essays in this paperback volume are designed to take stock of and to reassess educational concepts and beliefs as well as to identify changes in educational thought called for by new conditions. In their Preface, the editors disassociate the essays from any school of philosophy and state five purposes. The selections have been written by John Hanson (Learning by experience, 1-23); B. Paul Komisar ("Need" and the need-curriculum, 24-42); Kenneth B. Henderson (Uses of "subject matter," 43-58); Jane R. Martin (On the reduction of "knowing that" to "knowing how," 59-71); Harry S. Brody (Mastery, 72-85); B.O. Smith (A concept of teaching, 86-101); Robert H. Ennis (Is it impossible for the schools to be neutral?, 102-111); Mary Jane Aschner (Language of teaching, 112-126); Myron Lieberman (Equality of educational opportunity, 127-143); James E. McGeeley (The logical and psychological, 144-160); R.H. Ennis (Assumption-finding: 161-178); L.H. Swift (Explanation); Komisar & McGeeley (The logic of schoolems). Conditions to be fulfilled in post hoc explanation are set forth by Leonard Swift on page 192. Very often this kind of explanation has to be employed in a report of research.

Smith, M. Brewster, & Hobbs, Niccols. The community and the community. Mental Health Center. Amer. Psychol., 1966 (June, 1, 499-509. A statement, prepared after some 50 psychologists responded to an original request, adopted as the official position of the APA. The mental health professions are not to be regarded as guardians, but as agents of the community. Among others allied in the community's quest for the health and well-being of its members. Fully half of our mental health resources should be invested in programs for children and youth, their parents, teachers, and others who work directly with young people. This proposal is going to require a thoroughgoing reorientation of the mental health establishment. The issue of "clinical responsibility" should be governed by the principal of competence rather than professional identification. The issue is devoted to various aspects of community mental health, including the functions of psychologists as community consultants.

Strom, Robert D. (Ed.). The inner-city classroom: Teacher behaviors. Columbus: Charles E. Merrill Books, 1966. - This book provides a vicarious encounter with schools in deteriorating sections of large cities, with teachers in such schools, and some strategies for coping with educational deprivation. Chapters were prepared by President John Niemeyer of Bank Street College of Education in New York (Importance of the inner-city teacher, 1-20), the editor (Teacher aspiration and attitude, 21-40), R. J. Havighurst (Overcoming value differences, 41-56), E. Paul Torrance (Fostering creative behavior, 57-74), Paul H. Bowman (Improving the pupil self-concept, 75-92), A. Harry Passow (Diminishing teacher prejudice, 93-110), G. O. Johnson (Motivating the slow learner, 111-130), Hunt & Rasof (Discipline: Function or task?, 131-144), Gene C. Fusco (Reaching the parents, 145-162), and a summary by R. D. Strom (pp. 163-180), followed by a bibliography which has some valuable, up-to-date entries.

Vernon, Philip E. Personality assessment: A critical survey. New York: Wiley, 1964, $7.50. **Part I deals with inference (nomothetic, psychometric) and intuition (idiographic, clinical) theories. Part II is concerned largely with clinical approaches and Part III with objective ones. Vernon then attempts to construct a model of a personality when relying on other persons' theories (e.g., Allport, Rogers, Kelly). The final section pulls together a number of recommendations.

Vinacke, W. Edgar; Wilson, W.E.; & Meridith, G.M. (Eds.). Dimensions of social psychology. Chicago: Scott, Foresman, 1964. The editors of this large paperback have written introductions to the parts and selections from authors: (1) Founders of social psychology; (2) Personality and social behavior (Abram Kardiner, J.W. Whiting, N.M. Prentice); (3) Social influence processes; (4) Group structures and processes; (5) Intergroup processes. Each of the sections is broken down into parts.

Vogel, Wm.; Broverman, D.M.; Draguns, J.G.; & Klaiber, E.L. The role of glutamic acid in cognitive behavior. Psychol. Bull., 1966 (June), 365-382. - Considerable evidence exists suggesting that glutamic acid does play a significant role in cognitive behavior. The article summarizes the effects of glutamic acid upon (a) retardate intelligence; (b) intellectual processes of "normal" people; (c) in physiological functioning. Apparently GA inhibits neural fatigue and enables the neural fibers to be receptive to continuous stimulation. The ability to resist neural fatigue might well underlie the increased attention, persistence, and ability to perform simple repetitive tasks reported to follow the administration of glutamic acid.

Wallace, John (Stanford). An abilities conception of personality. Amer. Psychol., 1966 (Feb.), 21, 132-138. **The bulk of research in personality has stemmed from essence concepts of personality (e.g., Murray's "needs," 1938; Allport's "traits," 1937) which emphasize response predispositions. Constructing personality as response capability emphasizes the importance of the stimulus conditions under which behavior occurs.

Wann, Kenneth D.; Dorn, Miriam, S.; & Liddle, Elizabeth A. Fostering intellectual development in young children. New York: Bureau of Publications, Teachers College, Columbia University, 1962. - The authors have learned that concept development is a gradual and life-long process. They have found ways of determining where young children are in their understanding of the world about them. They do not keep nursery-school and kindergarten children "on ice" until some magic day when the boys and girls are "ready" for more advanced concepts. The authors have found ways to help children clarify, organize, and extend meanings as they "reach out" for understanding.

Maclver on Social mobility (55-ro); School leaving--Room at the top (89-100); The joiners--Male and female (115-129); status aspirations at the social club (130-146); Sacred and profane worlds (149-167); town and country (236-267); The social logics of Jonesville (266-286).


Woolridge, Dean E. *The machinery of life.* New York: McGraw-Hill, 1966. - The author presents a strong case for the essential continuity of nonliving matter and living organisms. His thesis in this book and in *The machinery of the brain* (McGraw-Hill, 1963) is that all aspects of behavior, including those we call "intelligent," ultimately will be found reducible to the operation of physical principles not fundamentally different from that which underlies the design of advanced versions of computing and logic machines. Using non-technical language, the author traces the possible emergence of life from inanimate molecules in cut-off portions of primeval lakes (or seas); i.e., the possible evaluation of the nucleic acid/enzyme mechanisms essential to life from small, membrane-enclosed "bags" of chemicals called coacervates. Chapters on genetic mechanisms (137-182), multicellular life (183-196) and a conclusion arguing for "reductionism" to "physical laws of nature" (197-204) are succinct and should be understood by the educated layman.

Yarrow, Leon J. Maternal deprivation: Toward an empirical and conceptual re-evaluation. *Psychol. Bull.*, 1961 (Nov.), 58, 549-590. - Tables 1 to 4 present the chief research upon the consequences of maternal deprivation organized in terms of the major conditions of early care: i.e., institutionalization, separation, multiple mothering (none of these deviations from a hypothetical mode of maternal care can be used as a simple research variable or explanatory concept). Yarrow raises the issue of reversibility as well as questions about "the more elusive aspects of the emotional interchange in the intimate dyadic relationship of mother and infant."

Zavala, Albert. Development of the forced-choice rating scale technique. *Psychol. Rev.*, 1965 (Feb.), 63, 117-124. Studies on the FC method show this scale is more resistant than other scales to effects of bias. Many workers have found it useful to use an FC scale in some combination with conventional scales. The author discusses validity, leniency or bias, acceptability and format. He concludes, "Yet there is ample evidence that where FC and conventional scales are warranted, the FC scale provides a test relatively free of the disadvantages of the traditional tests."

Ziller, Robert C. Toward a theory of open and closed groups. *Psychol. Bull.*, 1965 (Sept.), 64, 164-182. The author discusses four fundamental characteristics which distinguish among groups wherein membership is in a constant state of flux (open groups) as opposed to groups in which the membership is relatively stable (closed groups); namely, time perspective, equilibrium, frame of reference, and changing group membership. The last paragraph on leadership succession under various conditions of group structure, with reference to success and failure. After generalizing upon the outcomes of several studies, he proposes "that democratic organizations are designed to perpetuate success, whereas autocratic organizations are designed to adjust to failure."
BSR No. 10-A is a set of annotated references which could have been further edited and then grouped under rubrics such as "Child and Human Development," "Human Development and Education," "The Teaching-Learning Process." School people will find that Arensberg & Kimball (1965), Bruner (1961), Goslin (1963), Krumboitz (1965), Piaget (1961), Silberman (1966), Spindler (1963), as well as Wann, Dorn, & Liddle (1962) are interesting reading. The annotated entries represent 45 articles, 26 brief reviews of books (including a number of paperbacks), and 1 monograph.