

Theories of Learning in Education

This syllabus describes the course objectives, the class lecture and seminar topics, the assignments and their due dates. A bibliography of the assigned readings, guidelines for preparing two essays, and a table by which final grades for the course will be calculated are also included. Please keep this document in your notebook and bring it to class regularly. It is designed as a study guide.

Course objectives

1. To provide a setting for dialogue and exchange of information, ideas, and viewpoints in an ongoing seminar about selected learning theories, their historical origins, and their influence upon educational practice in a wide range of school and non-school settings.
2. To examine the strengths and weaknesses of learning theories concerning how they have been used to promote educational policy and practice that (a) empowers and enables people to learn and develop, and (b) that sometimes restricts and prevents the learning and development of women, minorities, and those with little money and few resources.
3. To provide opportunity to identify and study in-depth particular aspects of learning theory and their applications with relevance to the student's interests or needs.
4. To encourage cooperation, sharing, collaboration, teaching and learning among students engaged in the completion of class activities.

Course operation

Each Monday evening class consists of two sessions separated by a 5 minute break. Class assignments and activities reflect this two-sessions per evening plan. Class sessions include a mixture of lectures, demonstrations, small group problem solving activities, structured discussions, and seminars. Students are expected to attend and participate regularly in these activities. Regular attendance helps the student to acquire the sequence of concepts and skills presented.

Required Activities

Five types of activities are required to complete the course of study.

Readings

In order to be prepared for class activities, lectures, discussions, and formative examinations, students should read the assigned articles and text chapters according to the class schedule. The reserve readings are generally in the order in which they are assigned on the course schedule. Each student should purchase the required text, (Lefrancois, G.R. 2000, Theories of human learning, Belmont, CA: Wadsworth/Thompson), and obtain access to the assigned readings which are on reserve in the Dickey Hall library. A list of the readings is provided on pages at the end of this document. Students should also obtain a set of the Course Notes, Formative Exams, and Essay Exams. The Notes include the instructor's teaching and study notes, illustrations, exercises, the formative examinations and the essay examination questions.

Two Scholarly Essays

A set of multiple-part essay questions are include in the Course Notes. The essay questions call for the student to demonstrate the analysis, integration, and application of concepts and ideas presented in the assigned readings and class discussions. These essay questions address significant issues and invite students to link these issues and concepts to the student's professional work or goals.

Two times during the course each student is expected to select one of the essay questions and prepare a well conceptualized and well written five-page essay that addresses the issues raised in that question. Students should select questions whose particular theories, issues, and applications have direct personal or professional relevance. At designated dates, each student will be asked to: (a) report which question he or she will select and, (b) write and submit the five page essay that addresses that question, its issues, significance, application, and relevance to the student's interests, experience, and professional career.

The two scholarly essays should be prepared in proper APA format and include full citations to all articles referenced including the course readings, Notes, as well as other articles used by the student. Each student should keep both essays in a portfolio to be handed in for review at the end of the course. Educational Psychology students are required to keep copies of these papers and include them in a portfolio presented to their masters and doctoral committee members. Pages ?? ?? of this syllabus provide detailed instructions for writing the essays. The criteria by which the essays will be evaluated are also listed.

Formative Examinations

Approximately every two weeks (and sometimes each week) a 25 to 35-item multiple-choice exam will be completed by students at their convenience outside of class and then scored and discussed in class. Each formative exam deals with concepts and applications encountered in the course readings, Course Notes, class activities and discussions. Scores on formative exams will not count toward the course grade in a major way. However, each student who scores above 50% on a formative examination will be credited with 2 points, provide he or she brings the completed answer sheet to class on the due date. Students who score below 50%, or who fail to complete the formative examination on time, will receive zero points for that exam.

The formative exams are designed to assist students in learning and applying course concepts. The exams are instructional devices that prepare students to perform at high levels of mastery on the course final exam. A set of the formative exams is provided in the Course Notes.

Final Examination

The final exam is an objective in-class multiple-choice exam administered during the specified examination period. The 80-90 item test will be assembled from items parallel to those included on the eight formative examinations.

Importance of Learning Theory for Those Who Teach and Serve

This course focuses on a few learning theories that are important because of their historical and current applications. These theoretical perspectives have influenced the conceptualization, design, and practice of educational activities, services, and policies in nearly all realms of human activity.

The teaching and learning of a wide variety of attitudes, information, concepts, skills, critical thinking and problem solving strategies and other capabilities by various groups of persons occurs in multiple settings for a wide variety of reasons. Some of these settings include family and community child-rearing activities, moral and values education, counseling and psychotherapy, self-directed learning, continuing and professional education, vocational and adult education, higher education, health and safety education, military training and education, and the design of instructional materials, methods and teaching devices in all these fields. Learning theories also underlie large-scale educational research and development activities as well as education and welfare social policies and programs at the local, state and national levels. Many persons involved in these educational activities are unaware of the influence of learning theories upon their attitudes and professional practices, a condition that Bloom¹ refers to as “ignorance in education.” Yet, all persons who are involved in educational enterprises are profoundly influenced by pervasive theories of learning that are part of the fabric of our culture and society. As both Bloom and Getzels² point out, those educators and helping professionals who are unaware of these theories and their influence are less informed and less capable of understanding the constraints and context under which they practice. As a result they are more prone to being misled or to act in ignorance to the detriment of themselves as well as those they serve.

The course syllabus and Notes contain many questions about these theories and their applications to many areas in teaching and learning occurs. Each student is expected to examine these questions and then to select questions and issues in which he or she is interested because of their implications for or application to some area of learning in which the student is interested.

Collaborative Learning

Students are encouraged to form study groups. Each student should complete his or her own formative examination answer sheet prior to the study group discussion. Then, during time provided in class, study group members' should discuss their answers to the formative examination noting differences of opinion, raising questions, and promoting better understanding of course concepts and issues. Each student is expected to individually conceptualize and write his or her two essays. However, students are encouraged to have members of their study group proof read and critique their individual essay answers prior to giving the final copy to the instructor. Prewriting, writing, proofing, rewriting and seeking criticism from colleagues are normal aspects of good writing. Collaboration is encouraged among students as they prepare for and discuss the formative examinations. Students will also be assigned to collaborate and present sections of course readings as part of classroom activities. Collaboration among students is not allowed during the final course comprehensive examination.

Grades

Grades are based on the instructor's judgment of the student's performance for each portion of the course. Criteria for the evaluation of the three scholarly essays are stated in the attached “Guidelines for Scholarly Essays” on page 14. The distribution of points across required course activities and the method by which final grades will be calculated are presented in Tables 1 and 2. The formative examinations and other aspects of the course follow a mastery learning approach.

¹ Bloom, B.S. (1981). All our children learning. New York: McGraw-Hill

² Getzels, J.W. (1974) Images of the classroom and visions of the learner. School Review, 8, 527-540.

Incomplete Grades Policy

Grades of incomplete will be awarded when necessary within the rules of University (e.g. at least one-half of all course work is completed with a passing grade, and there is a reasonable justification for the additional time required for completion of course work). Students wishing to receive a grade of incomplete must inform the instructor of this need and complete the proper University and Department forms at least one week prior to the final examination. Unless there are valid reasons for the delay, incomplete work not completed six weeks following the final exam will result in the dropping of the student's course grade by one letter.

Table 1: Distribution of points awarded for required course activities

Item	Points
Eight formative exams (2 points for completion of all exam on time with > 50% correct)	16
Scholarly essays (2), 21 points each	42
Final examination (80-90 multiple-choice questions)	42
Total Possible Points	100

Table 2: Basis for final grade assignment

Earned points	Final grade
98 - 100	A+
94 - 97	A
91 - 93	A-
88 - 90	B+
84 - 87	B
81 - 83	B-
78 - 80	C+
74 - 77	C
71 - 73	C-
0 - 70	E

Professor's Office Hours

The hour before and after Monday's class is reserved for office hours for EDP 610 students. Other times are by appointment. Professor Cole can be reached at 257-7873 or 323-5202.

Overview of Course and Class Schedule Content Organization

The course readings and class activities are organized around five themes. Collectively the themes provide a framework for appreciating the historical origins and of learning theories and their influence on how learners are viewed and how instruction is conceptualized. As Getzels pointed out, the differing theoretical conceptions of the learner and learning are powerful forces that shape policies and practices in all social institutions where people are involved in teaching and learning. These theories exert a powerful influence on us with or without our awareness. Learning theories, far more than empirical research, shape the policies that support formal educational activities and institutions; the architecture of the buildings in which formal education is practiced; the child rearing practices of families; the way business, health care, criminal justice and other

professionals plan and carry out their services and programs. The professional education and practice of many professions whose members are involved in fostering learning among the clients they serve are profoundly influenced by these theories. The five themes are listed below and also appear as headings for sections of the course schedule.

- Section 1: Roots and Perspective: Origins of American Learning Theory in Philosophy, Science, and Evolutionary Biology
- Section 2: American Behaviorism and its Gestalt Critics: Influence of Pavlov, Watson, Guthrie, Thorndike, Hull and Skinner versus Gestalt Psychologist
- Section 3: Cognitive-Behaviorism and its Applications, Gestaltists, Tolman, Keller, Bloom, Carrol, Bandura, Gagne and others
- Section 4: Mind, Motives, Culture, Cognition, Conduct, and Consequences, Piaget, Maslow, Bruner and others
- Section 5: Minds, Memory, Neural Networks, the New Connectionism, Bruner, Bandura, Sperry and others

Table 3: Class Schedule

Date	Topics, Activity, Assignments, and Questions
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8/30 Orientation to the course procedures and overview of course objectives and content.

Section 1: Roots and Perspective

- 8/30** Read: Lefrancois, Chapter 1, "Human learning: science and theory."
 (N)³ Theories & learning: Basic concepts, p. 14
 (N) What is learning? p. 6
 (N) Psychoeducational theory and methods, pp. 7-8
 (N) Definitions and basic paradigms, p. 16
 (N) A categorization of learning theories, p. 16
 (N) Thinking About Diversity and Community. p. 4 (Who are we? Our class, America, psychology, and educational psychology in a larger context.)

Questions:

1. Learning, performance, motivation, and development: What are they and how are they related?
2. Theories, laws, principals, and beliefs: What are they and how do they differ? How do scientific and civil laws differ?
3. Criteria for the evaluation of theories: What are they and what is their utility?
4. The "scientific method," experiments, and common fallacies in experimental studies.
5. Experimental "subjects" (participants): Who are they? What ethical issues are involved?
6. Classification of learning theories: Lefrancois' Bandura's, Gagne's, and Bruner's as examples. (See Lefrancois, pp. 22-25, 314-322 and especially Table 11.1, p. 315. See also Tables 11.2 and 11.3 pp. 324-325. See also Notes, pp. 100-103.)

³The N indicates that materials in the Course Notes will be used or referred to. Students should bring their Course Notes, textbook, and readings to each class session.

- 8/30** The reshaping of early American learning theory by social and technical change related to national defense, health and other pragmatic concerns

Read: R Cole & Lacefield, Theories of learning, development, and psychoeducational design

(N) Outline of key points in origins of psychoeducational design, p. 30

(N) Questions and comments about learning theory, instructional theory, and psychoeducational design, p. 31

(N) Gowin's conception of educating, p. 17

Questions:

1. According to Getzels why are theories important for professionals who serve others? For Parents? Others? (See this document, pp. 2 & 3.)
2. According to Bruner and Cole & Lacefield, how and why was American learning theory modified following WW II? What happened? How and why did a behavioristic learning theory based on sensationism, empiricism, objectivism, and physicalism change to a cognitive conception of learning and a focus on mind and mental (cognitive) operations?
3. In what ways is Gowin's definition of learning different from traditional learning theory definitions? Is it similar to Bruner's views of learning? How? In what ways?

9/6 Labor Day. No class

- 9/13** The foundations of American Learning theory in philosophy, experimental physical science, and evolutionary theory.

Read: (N) Cole, Historical origins of learning theory, p 19

(R) Gould, The power of this view of life

(R) Catania, B. F. Skinner, organism

(N) Multiple influences of evolutionary theory on American Psychology, p. 27

(N) Outline of key points for historical origins of learning theory, p. 18

(N) Questions on historical origins of learning theory, p. 26

Questions:

1. American learning theory is founded on associationism, hedonism, natural selection, and experimental physical science. How and why? Present day influence of these concepts?
2. Who first articulated the integration of these constructs to obtain a "scientific" theory of learning? Who else adopted this viewpoint and why?
3. In what ways did this development of a "scientific" theory of learning influence human and animal studies of behavior, public education, child rearing, business practices, other areas of life?
4. Biological and environmental determinism: What are they? What do they prescribe? Why? Historical and contemporary impact on policy and practice. Examples?

9/20 Formative Exam 1 scored and discussed. ⁴

⁴ The sign indicates a formative exam, the an essay question selection, and the § and essay answer. These assignments are listed in a box just under the dates for the course topics. These dates are the due dates.

Section 2: American Behaviorism and its Gestalt Critics

9/20 Pavlov, Watson, and Guthrie: Their theories and their impact.

Read: Lefrancois, Chapter 2, "Pavlov, Watson, & Guthrie: Early behaviorism."
 (N) Questions about Pavlov's theory, p. 32
 (N) Key points in Pavlov's theory. p. 33
 (N) Feelings, p. 34
 (N) Basics of Pavlov's Watson's, and Thorndike's theories of learning, p. 35
 Lefrancois, Chapter 5, "Conditioning, contiguity, information, and biology"

9/20 Thorndike's theory of learning: A major integration of prior concepts. Contemporary applications of Thorndike's and other early learning theories.

Read: (N) Basics of Pavlov's Watson's, and Thorndike's theories of learning, p. 36
 (N) Thorndike's theory of learning, p. 37-45
 Lefrancois, Chapter 3, pp. 63-74, Thorndike

Questions:

1. Who first articulated the law of effect? How is this law similar to evolutionary theories of adaptive behavior? Who else adopted the "law of effect" viewpoint and why?
2. In what ways did development of the law of effect influence human and animal studies of behavior, public education, child rearing, business practices, other areas of life?
4. Biological and environmental determinism: What are they? What do they prescribe? Why? Historical and contemporary examples? Were Watson's views extreme? How so?
5. In what ways have original conceptions of Pavlovian conditioning and contiguity theory been modified in recent years? Implications? Examples? (See Lefrancois, Chapter 5)
6. People often feel that Pavlovian conditioning is something that is old and outdated, or something that only applies to animals, and not human behavior. Is this so?

9/27 Discussion of Thorndike's theory continues.

9/27 Hull's Theory: Behavioristic learning theories as precise descriptors and predictors of animal behavior (including humans). Hull's goal. A failed effort? In what ways? Why?

Read: Lefrancois, Chapter 3, pp. 76-87, Hull
 (R) Hull, "Mind, mechanism, and adaptive behavior" (APA 1936 presidential address).
 (N) Key concepts and relationships in Hull's theory, pp. 46-47
 (N) Cole, notes on Staats, verbal habit families, p. 48-51

Questions:

1. What was Hull's view of consciousness, its existence, its origin and purpose as a social-psychological concept, and its role in the scientific study of behavior? (See Hull presidential address, pp. 335-336.)
2. What was Hull attempting? Why? In what ways did he make use of Guthrie's theory and why did he do so?
3. What is the meaning of: If ${}_S E_R = ({}_S H_R \times D \times V \times K) - {}_S I_R > {}_S L_R$, then R?

4. How did Hull use this equation to try to predict the behavior of a rat? A human? With what success? Explain using examples
5. In what ways does Staats use Hull's theory to explain human behavior, especially human mediation or thinking and creativity?

10/4 Students select and report to the instructor which first essay question they will answer.

10/4 Formative Exam 2 scored and discussed.
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10/4 Gestalt psychology and early cognitive theories as alternatives to behaviorism.

Read: Lefrancois, Chapter 6, pp. 169-189, Tolman and the Gestaltist
 (R) Kohler, Gestalt psychology
 (N) Gestalt psychology, Notes pp. 52-59

Questions

1. What is a "barrier" problem? How did Kohler happen to study barrier problems? With whom? Of what relevance is the concept of "barrier" problems in interpersonal dynamics, counseling psychology, and life and death situations in occupational safety? Other examples?
2. Gestalt laws of perception: Pragnanz, closure, continuity, similarity. Examples?
3. The einstellung effect, functional fixedness, and the Zeigarnik effect. Examples and relevance?
4. The psychological and behavioral fields (Lefrancois, pp. 83-184). An example, Lewin's life space & Gestalt concepts (see Notes pp. 58-59). Significance and applications?
5. Tolman's purposive behaviorism. His two famous experiments, cognitive maps, and their significance and influence?
6. Another question: Read footnote 5 on page 184 of Lefrancois. Is Ms. Foster correct? Is Lefrancois guilty of sexist language? What gestalt (psychological field) might be operating here such that Ms. Foster and Lefrancois see the situation differently. What experiential history may have led to these two different psychological fields?

10/11 Continued discussion of Gestalt theory

Formative Exam 3 scored and discussed.
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10/11 Begin Skinner's operant conditioning and related approaches.

Read: Lefrancois, Chapter 4, pp. 90-123, Skinner's Radical behaviorism: Operant conditioning
 (R) Skinner, On having a poem
 (N) Questions on Skinner's, On having a poem, p. 65
 (N) Skinner: Basic conceptions and applications, p. 60-61
 (N) Skinner's experimental system, types of learning, positive and negative reinforcement, p. 62
 (N) Four schedules of reinforcement, pp. 63-64
 (N) Questions concerning Skinner's technology of teaching, p. 66
 (N) Quiz on key aspects of Skinner's theory, pp. 67-68

(N) Cole, Why some miners violate the law and commit unsafe acts, pp .69-82
(The A--B--C model)

Questions

1. How do you feel about Skinner's statements in "On having a poem." Why? About his other writings? How does Skinner talk and behave about feelings? Why?
2. In what ways is Skinner's theory similar to Thorndike's law of effect? Different?
3. What is the A-B-C model of behavior and why did (does) it have such wide appeal?
4. Positive and negative reinforcement, and punishment I and II. What are these and how are they different from one another? Examples of each?
5. For what reasons were Skinner and Thorndike opposed to punishment as a means of shaping behavior? Was the basis of their opposition functional or ethical? Or both?
6. Around 1971, Skinner won a "Humanist of the Year" award. Why do you think this happened? Why were many "humanists" offended?
7. For what reasons were (are) Skinner's conceptions so widely used and influential?
8. For those who dislike Skinner's views, which aspects of his methods and conceptions do these persons (and others) tend to embrace and use? Why?

10/18 Instructor and students continue discussion of Skinner's operant conditioning theory and the A--B--C model.

10/25 § First Essay is due.

Section 3: Cognitive-Behaviorism and its Applications

10/25 Social learning theory: An integration of behavioral and cognitive theory into cognitive-behaviorism.

Read: Lefrancois, pp. 123-129, 305-307, 328-330 Bandura's behavioral control systems 314-316
(R) Lefrancois, Social influences
(R) Bandura, Human agency in social cognitive theory
(N) Social learning theory and self efficacy in human self direction, pp. 83-85

Student study groups review and discuss the following materials and then complete the following tasks.

1. Discuss the questions listed below.

10/25 2. Formative Exam 4 is completed, discussed and scored in class.

3. Students collaborate and complete portions of Formative Exam 5

Questions

1. In what way did Bandura's theory integrate Pavlov's, Thorndike's, and cognitive theories of learning? What are the meanings of stimulus, outcome, and symbolic control?
2. What is self efficacy? What is agency? What is the relationship between the two?

3. In what ways would you expect mastery learning approaches, Carroll's model of school learning, PSI and similar approaches to instruction to effect students' self efficacy? Explain.
4. In what ways would you expect gender and racial discrimination and harassment to effect persons' self efficacy? Why? Examples and illustrations? (See Notes, pp. 121-134.)
5. Bandura defines three types of human agency: (a) autonomous, (b) mechanical, and (3) emergent-interactive. What is the meaning of each of these terms and their historical significance? Which of the three definitions of agency best suits you as you think about your own life? Why?
6. There is strong evidence that persons self efficacy beliefs directly influence their (a) cognitive processes and problem solving, (b) motivation for tasks and life, (c) emotional states and mental and physical well being, and (d) what roles, jobs, friends, tasks they select and the degree to which they achieve or fail in these relationships and activities. Explain how this works? Examples and illustrations.
7. Refer to Notes, page 7, "Psychoeducational theories." Using Bandura's concept of self efficacy, explain the upward and downward spiral of development and the role of learning, performance, and motivation in this spiral, upward or downward. Examples and illustrations?

11/1 Students report to the instructor the second essay question they select.
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11/1 Translation of American cognitive-behaviorism into instructional theories. Influence of Keller, Carroll, and Bloom.

- (R) Carroll, A model of school learning
- (R) Carroll, The Carroll model: A 25-year retrospective and prospective view
- (R) Bloom, Learning for mastery
- (R) Kulik, Kulik, & Cohen, A meta-analysis of outcome studies of Keller's PSI
- (N) Questions about Keller's PSI, p. 86
- (N) The Keller plan, pp. 87-88
- (N) Common problems with PSI, pp. 89-90
- (N) John Carroll's model of school learning, p. 91
- (N) Notes and Comments on John Carroll's, A model of school learning, pp.92-95

Questions

1. Carroll's model of school learning has five elements, three that reside within the learner, and two that are under control of the instructor. What are these elements?
2. Are the three elements that reside within the learner also influenced by the two instructor factors? If so, in what ways? Examples?
3. According to Carroll (and Bloom) the primary variable that explains differences among students ability levels is _____. Why is this? What is the significance of this finding?
4. To what degree has Carroll's model of school learning been supported by studies of mastery learning, PSI, and similar approaches? Where have these instructional-learning theories been applied most frequently and why? With what effects or outcomes? Examples?
5. Bloom states that nearly all students can master academic course skills and content for nearly any academic subject if the time allowed for learning is variable and the quality of instruction is high. What are the implications of such a viewpoint and its widespread implementation?

What happened in Korea when such a system was widely implemented? In the US in chemistry and engineering departments? Why?

6. Does Carroll agree with Bloom's assessment? (See his "A 25-year retrospective and prospective view" article.
7. Have you experienced a course or courses where the Keller, Bloom, or Carroll approach was used? As a student? As a teacher? How did you feel about the method? Why?

11/8 Formative Exam 5 scored in class.

11/8 Gagne's theories and their applications. Another cognitive-behaviorism model and its influence on instructional design.

Read: Lefrancois, Chapter 11, pp. 330-334, Robert Gagne: Outcomes of learning
 (R) Gagne, Learning outcomes and their effects
 (N) Learning and instruction, objectives, Gagne's domains of learning, pp. 96-97
 (N) Gagne's domains of learning and events of instruction, 98-99
 (N) Similarities & differences among key learning theorists, pp. 100-103

Questions

1. Gagne was trained in traditional American behaviorism. Yet, he developed a theory of human learning that went far beyond his training and that resulted in a synthesis of major behavioral and cognitive theories. What social factors contributed to this outcome and the development of his model? Where has his model of learning been applied most frequently? Why? With what effect? (See Cole and Lacefield article in the reserve readings.)
2. Gagne opposed using the term "behavioral objectives" and favored the term "performance objectives." Why? What is the significance of this viewpoint? In what ways do you think Gagne may have come to this viewpoint? What about you? Which term do you favor and why? What difference does it make?
3. What is a task analysis? In what ways did Gagne make use of this method to determine how and what to teach novices who were expected to become expert in some knowledge or skill?
4. Early learning theorist argued there was only one type of learning for all animals and humans. Later learning theorists argued that there were only two types of learning. Bandura says there are three types. Gagne says there are 8 types. He later categorized these 8 types into five domains of learning. Questions:
 - (a) Which theorists posited one and two types of learning and what are these types (see Notes, pp. 100-103).
 - (b) Do Gagne's 8 types include the two types? Bandura's third type?
 - (c) For what reasons did Gagne later change the emphasis from 8 types to five domains of learning? (See Gagne article, Learning outcomes and their effects, p. 384.)
5. Gagne also specified 9 events of instruction. What are these events? What is the purpose of each event? In what sequence should the events of instruction proceed? Why? Which of the 9 events of instruction are most often slighted in typical classroom instruction? Why? With what effects on learning outcomes? (See Notes, Gagne's domains of learning and events of instruction, p. 98-99.)

Section 4: Mind, Motives, Culture, Cognition, Conduct, and Consequences

11/15 Translation of Bruner's and other's cognitive (and humanistic) theories into instructional theories.

- Read: Lefrancois, Chapter 7, Bruner, pp. 190-208.
 Lefrancois, Chapter 11, pp. 320-321, and models of the learner pp. 334-337
 (R) Bruner, How mind begins
 (N) Notes, comments, and questions on Bruner's, How mind begins, p.104-6
 (N) Notes, comments, and questions on Bruner's, The new curriculum, p. 107-108
 (N) Questions about the tool activity (designed by Bruner to illustrate his theory), p. 109
 (N) Summary of Bruner's views on perception and cognition, p. 110
 (N) Bruner's concept of curriculum design, p. 111

Questions

1. Bruner was trained in traditional American behaviorism. Yet, he rebelled and developed a "models of the learner" approach that went far beyond his training and that resulted in a set of very influential cognitive theories. As he says in the title of his autobiography he was "In Search of Mind." What social factors contributed to this outcome and the development of his model? Where has his model of learning been applied most frequently? Why? With what effect? (See Notes, pp. 104-108.)
2. Why does Bruner argue that perception and cognition are essentially the same basic process of categorization? Examples?
3. Participate in the "Tool" activity. Then comment on the ways in which this activity illustrates key points in Bruner's theory.
4. In The Process of Education, Bruner said it was possible to teach almost any subject in some honest intellectual form to any child at any age. What did Bruner mean by this and how is his statement related to his idea of the spiral curriculum and Vygotsky's zone of proximal development?
5. As Bruner sees it, is intelligence primarily individual or social? Why? Explain? What is your view on this matter? Examples and illustrations? Who helps Professor Cole to be intelligent when he (a) travels to work on his son's farm in Garrard County, (b) writes a chapter for a book? With what endosomatic and exosomatic equipment is he provided to do these tasks?

11/15 Bruner's theory of narrative representation: Two ways of knowing. A four-part model of learning that integrates other major learning theories

- Read (R) Cole, Stories to live by
 (N) Cole, Stories to live by, p. 113-116
 (N) Cole, Teaching and assessing youth safety decisions through stories, p. 117-120
 (N) Cole, Sexist stories, their meaning and impact, pp. 121-126
 (N) Cole, Stories we live by, pp. 127-134 (the roots of sexual harassment in culture tales that drive cognition, conduct, and consequences)

Questions

1. To what degree are your major judgments, decisions, and daily conduct based on well entrenched narratives that guide and direct you versus scientific logical thinking?
2. What is the source of the narratives that influence the stories about who we are, our goals, the meaning we make from our experiences, and the conduct that we exhibit?
3. Can narratives promote unhealthy, antisocial, destructive behavior as well as healthy, prosocial, and constructive behaviors? Examples?

11/22 Formative Exam 6 scored and discussed.

11/22 § Second Essay is due on or <u>before</u> this date. Before is better!

11/22 Motivation: A key consideration in learning, performance, and development : Behavioristic, cognitive, and humanistic theories and their implications.

Read: Lefrancois, Chapter 10, Motives: Behavior's reasons and causes
 (N) Physiological and psychological aspects of motivation, p. 135
 (R) Rogers, Personal thoughts on teaching and learning
 (R) Sarnoff & Cole, Creativity and personal growth
 (N) Creativity, counseling, and personal growth, pp. 139-140
 (R) Bloom, Peak learning experiences
 (N) Maslow's needs hierarchy, p.136 (See also Lefrancois, pp. 292-293.)
 (N) Humanistic theories, pp. 137-138

Questions

1. Refer to Notes, "Psychoeducational theories," p. 7. Describe the role of motivation in learning and performance and the upward and downward spiral of development. Give + and - examples.
2. Maslow studied under Thorndike. Over many years Maslow developed his hierarchy of needs. Although many people are familiar with Maslow's hierarchy, few know how and why his theory represented a major integration of behavioristic "deficit" motivation theory and cognitive theories of self direction and agency. Explain in what ways Maslow accomplished this. Examples? What is the significance of the Maslow synthesis in understanding human behavior and learning? Which is correct, the behaviorist "deficit" or the cognitive "self directing" viewpoint?
3. Where in the Maslow hierarchy of needs do Thorndike's satisfiers and annoyers and law of effect theory fit? Hull's drive reduction theory and habit strength? Pavlov's conditioning? Tolman's purposive behaviorism? Arousal theory? Attribution theory and dissonance? Self efficacy and agency? Examples? Illustrations?
4. Is it accurate to say that Maslow's theory is grounded in both behavioristic and cognitive theories of learning? Explain.
5. What type of social and emotional support enables self actualization? Why? How?
6. As they develop do people "grow up" the Maslow hierarchy once or many times? Explain.
7. What does Bloom mean by a peak learning experience? Are these common or rare in school learning situations? Why? What are the characteristics of a classroom peak learning experience? Have you every encountered one?

8. Does Rogers' address to the Harvard faculty qualify as a peak learning experience? For the Harvard faculty? For others who have read his address? Explain. What do you think Rogers intent was with respect to Maslow's needs hierarchy issues? What position was Rogers promoting in terms of self efficacy and agency? Why?
9. Bruner is a proponent of narrative thinking as a primary way of knowing and acting on the world. In what way does Bruner's theory of narrative thinking deal with motivation?
10. In what ways are Skinner's notions of + and - reinforcement related to Maslow's concepts of motivation? How? Why? Examples?
11. Technical and spiritual creativity: What are they? In what ways are they crucial to different tasks and functions? Which is most promoted and celebrated in our culture and which most ignored? Why and with what consequences? In what ways do these two types of creativity motivate different goals and behavior.

Section 5: Minds, Memory, Neural Networks, the New Connectionism

11/29 Memory, its relation to learning, and its varied types and features

Read: Lefrancois, Chapter 10, Learning and remembering: Models of memory

(N) Components of memory, p. 147b-147c

(N) Broadbent's information processing model, p. 147d

(N) Bruner on selves and autobiographical memory, p. 147a

(N) Autobiographical memory, pp. 147b-147c

Questions

1. What do most people think memories are? (Exact copies of events or situations, or constantly reworked and reconstructed products of inferential process?) Why? Which view is correct?
2. How much and for how long do we remember most of the many experiences encountered in our daily lives?
3. Is it possible to know something and not be able to remember what one knows? Is it possible to remember something that someone doesn't know?
4. What the characteristics of sensory memory, STM, and LTM? What is the function of each? How do they differ? (See Lefrancois, 264-270.)
5. What are declarative knowledge and procedural knowledge and how do they differ? Give an example of each. What are the memory counterparts of these two types of knowledge? Which type of memory (declarative or procedural) tends to be outside or our awareness? Give an example of each type.
6. What are autobiographical memories and what roles do they play in the lives of individuals and the beliefs and behaviors of cultural groups? Are autobiographical memories episodic or semantic or both? Explain. Examples?
7. Are memories stored in specific places in the brain?
8. What mechanisms are hypothesized as being responsible for forgetting?

11/29 Neural networks, PDP, minds, AI, and simulations of minds

Read: Lefrancois, Chapter 8, Neural networks: The new connectionism

(R) Sperry, The impact and promise of the cognitive revolution

(N) Questions and comments on Sperry's cognitive revolution, p. 141-142

(N) Expert systems and the commercial use of AI, p. 143-144

(N) Machines, minds, souls, AI, and expert systems

Questions

1. How and why did psychology come to be called the study of human (but not animal) souls?
2. What position on the study of "human" souls was taken by Pavlov, Watson, Hill, Skinner and other American behaviorist? For what reasons?
3. In what ways is Sperry's message in "The impact and promise of the cognitive revolution" similar to Hull's 1936 presidential address? Different from the views of Bruner, Rogers, and Gagne concerning what is needed to advance psychology, and more importantly, to advance the quality of life and living?
4. McVicker Hunt once said that a problem with many psychological theories is that they are largely based on "nearly adult rats, nearly adult pigeons, and nearly adult people." What did he mean by this statement? Is it a valid criticism? Explain. In what other ways is American psychology in its current expressions and versions biased in ways that limit its generalization? (Hint: see Course Notes, "Thinking about diversity" and Gowin's conception of educating.)
5. Is there a legitimate place in psychology for the study of "mind" as well as the study of behavior? Why? Why not?
6. Why does it matter (for us and for those we serve) whether and what we believe about the nature of mind, consciousness, behavior, and agency? Or whether we believe in biological determinism or environmental determinism? Case examples? Illustrations? New stories?

12/6 Formative Exams 7 & 8 are scored and discussed in class.
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12/13 Monday from 3:30 to 6:00 P.M. Final exam (comprised of parallel items from the formative exams) is administered in class.

Guidelines for Scholarly Essays

1. Select questions/topics that are of interest and utility to you. Select an audience for your paper and write the paper to that audience.
2. Get started early. Think about your topics. Make use of key resources including persons with special knowledge about the topics you select. Faculty members and librarians on university campuses can be a major resource in this process. Colleagues can also help in this role. Gathering, and organizing information, identifying the audience, planning the scope and focus of your essay, and structuring the essay usually require more time than writing the essay.
3. Target the essay within the limits of resources and skills available to you. It is better to write a modest, well articulated essay on a worthwhile topic than to attempt a very complex paper that ends up incomplete because of too little time or too ambitious a question or topic.
4. Plan to pre-write, write, and rewrite your essay. As you complete these activities, feel free to ask your fellow students and others to look at your work and to offer advice and suggestions. This is normal operating procedure. When selecting critics, avoid "yes persons."

5. Remember the goal is to write an essay that presents your analysis, evaluation, description, ideas, etc. about some topic having to do with learning, instruction, or teaching. It helps to pretend that you have been asked to prepare this paper as an address to a group of professional persons (a particular audience) who want you to summarize, share with them, make insightful observations, and call attention to important points about your topic. Presentations to such professional groups need to be accurate and well informed with respect to existing thinking, research, and practice on the topic. But they also need to add some significant ideas, observations, suggestions, or analyses derived from the presenter's reflections, studies, and experiences in relation to the topic. The essays you write will be judged against this expectation.

A number of specific criteria will be used to evaluate the essays. These include:

1. Is the topic or issue to be discussed clearly identified, and is the reader informed of the significance and importance of the topic?
2. Taken as whole is the essay accurate in its use of others' ideas and constructs? Is it a logical, informed, creative, and a well organized presentation? To what degree does the essay indicate that the author understands the significance of the ideas and issues being reviewed? Does the author relate issues identified in the course reading and study to other ideas and situations encountered in his or her own professional experience, observations, and other life activity?

As opposed to being mainly a:

- (a) collection of clichés (e.g. It is really important that teachers love kids! Teachers must go all the way to teach well. A really important study proves Bandura's theory.)
 - (b) listing of unrelated or poorly related facts, statements, or information
 - (c) detailed summary of others' work or points of view with little attempt to apply, evaluate, extend, compare, contrast, analyze, or otherwise integrate the ideas of others with one's own ideas and experiences to achieve some better synthesis, explanation, insight, understanding, critical analysis etc.
 - (d) collection of one's opinions and ideas about some topic with little attempt to relate these to logical issues and arguments debated by other scholars, or to what is known, observed, believed, and/or experienced by other scholars who have dealt with the same problems and issues.
3. Is the essay well written? Are there introductory and transition sentences and paragraphs that help the reader to rapidly comprehend the topic, purpose, and significance of the essay? Are the sentences well constructed and grammatically correct? Is there precise use of language such that the reader can clearly understand the meaning of the author, without having to make major attributions or insertions of additional ideas or phrases? Are the citations properly listed in APA style?
 4. Does the essay demonstrate an effort on the part of the author to think deeply about the topic and issues, to search for and use key ideas from others' professional work and thinking, and to integrate these into a well articulated statement?

Format, Length, and Procedures

1. Adopt a standard scholarly reference style, (APA if you are an EDP, EDC, or PSY student). Cite all reference sources.
2. Keep the paper to about 4 (and no more than 5) pages of double spaced, normal size type, on eight and one-half by eleven inch paper with one inch margins all around.
3. Include a title page that lists the question number and questions that you are addressing, your name, the course name and number, and the date.
4. List the names of your study group members or other professional colleagues who critiqued and proofed your paper and the dates they did so. Have each of these persons sign a blank line next to their typed name.
5. Centered at the top of the first page of each essay, list a title for your essay, your name, and the date. Include each of these items on a separate line.
6. Staple the cover page and the paper in the upper left hand corner. Do not placed the paper in a binder or folder.
7. Hand in an original copy of the paper and keep a copy for yourself. The original will be returned to you after it is read and evaluated.
8. If you are an EDP student you are required to retain the final evaluated copy of your paper (plus any earlier drafts that were evaluated by the instructor and returned to you). These papers are to be included in your portfolio that is must be presented to your masters thesis or to your doctoral committee members and your area program committee at your annual review.

Assigned Readings⁵

1. Cole, H. P. and Lacefield, W. E. (1982) Theories of learning, development, and psychoeducational design: Origins and applications in non-school settings. Viewpoints in Teaching and Learning, 58(3), 6-16. (11p)
2. Gould, S. J. (1994). The power of this view of life. Natural History, 103 (6), 6-8. (2p)
3. Catania, A. C (1992). B. F. Skinner, organism. American Psychologist, 47(11), 1521-1530. (10p)
4. Hull, C. L. (1936). Mind, mechanism, and adaptive behavior. Presidential address presented to the American Psychological Association, Hanover, NH, September 4. (4p)
5. Kohler, W. (1971). Gestalt psychology. In The selected papers of Wolfgang Kohler (pp. 108-122). New York: Liveright. (15p)

⁵ The readings occur in the order in which they are assigned on the class schedule.

6. Skinner, B. F. (1972, July 15). On having a poem. Saturday Review, pp. 32-35. (3p)
7. Lefrancois, G.R. (1982). Social influences. In G.R. Lefrancois, Psychological theories and human learning, (pp. 281-298). Belmont, CA: Brooks/Cole. (17p)
8. Bandura, A. (1989). Human agency in social cognitive theory. American Psychologist, 44(9), 1175-1184. (10p)
9. Carroll, J. B. (1963). A model of school learning. Teachers College Record, 64, 723-733. (11p)
10. Carroll, J. B. (1989). The Carroll model A 25-year retrospective and prospective view. Educational Researcher, 18(1), 26-31. (6p)
11. Bloom, B. S. (1982). Learning for mastery (pp. 153-175). In All our children learning (pp. New York: McGraw-Hill. (23p)
12. Kulik, J. A., Kulik C. L., and Cohen, P. A. (1979). A meta-analysis of outcome studies of Keller's personalized system of instruction. American Psychologist, 34(4), 307-318. (11p)
13. Gagne, R. M. (1984). Learning outcomes and their effects: Useful categories of human performance. American Psychologist, 39(4), 377-385. (8p)
14. Bruner, J. (1983). How mind begins. In, In search of mind (pp. 131-156). New York: Harper. (27p)
15. Cole, H. P. (1997). Stories to live by: A narrative approach to health-behavior research and injury prevention. In D. S. Gochman (Ed.), Handbook of health behavior research IV: Relevance for professionals and issues for the future, (pp. 325-349) New York: Plenum.
16. Rogers, C. (1961). Personal thoughts on teaching and learning. In On becoming a person (pp. 275-278). New York: Houghton-Mifflin. (4p)
17. Sarnoff, D. P. & Cole, H. P. (1982). Creativity and personal growth. The Journal of Creative Behavior, 17(2), 95-103. (9p)
18. Bloom, B. S. (1982). Peak learning experiences. In All our children learning (pp. 193-199). New York: McGraw-Hill. (7p)
19. Sperry, R. W. (1993). The impact and promise of the cognitive revolution. American Psychologist, 48(8), 878-885. (8p)