Social Cognitive Theory
Of Learning

"*Of the many cues that influence behavior, at any point in time, none is more common than the actions of others.*"
(Bandura, 1986, p.206)

Historical Overview

In the early 1960's, when many learning and instruction theories were being developed, Albert Bandura and his researchers recognized that many overlooked an important aspect of learning, the observation of others. From this analysis began the social-cognitive theory.

I.   ***HISTORICAL PERSPECTIVES***

    A.   **Theories of Imitation**

        Imitation is an instinct -- Observed actions elicit an instinctive drive to copy those actions.

        Imitation is limited by development -- Children imitate actions that fit with existing cognitive structures .

        Imitation is conditioned -- Behaviors are imitated and reinforced through shaping. Imitation becomes a generalized response class.

        Imitation is instrumental behavior -- Imitation becomes a secondary drive through repeated reinforcement of responses matching those of models. Imitation results in drive reduction.

    A.   **Rotter's Social Learning Theory**

        The social learning theory of Julian Rotter represents an integration of learning and personality theories (Phares, 1976). According to Rotter, individuals consider the likely consequences of their actions in a given situation and act based on their beliefs.

        The theory is comprises four major variables:

        a.   Behavior potential refers to the probability that an individual will act in a certain fashion relative to alternative behaviors.

        b.   Expectancy is the individual's belief concerning the likelihood that a particular reinforcement will occur as a consequence of a specific behavior.

        c.   Reinforcement value refers to how much the individual values a particular outcome relative to other potential outcomes.

        d.   The psychological situation implies that the context of behavior is important. The way in which the individual views the situation can affect both reinforcement value and expectancy.

        This relationship is symbolized as follows: BP=E & RV

    A.   **Bandura's Theory of Social Learning**

        Social cognitive learning theory highlights the idea that much of human learning occurs in a social environment. By observing others, people acquire knowledge of rules, skills, strategies, beliefs, and attitudes. Individuals also learn about the usefulness and appropriateness of behaviors by observing models and the consequences of modeled behaviors and they act in accordance with their beliefs concerning the expected outcomes of actions.

        Social cognitive theory is a direct response to Behaviorism. Bandura began building his theory of social learning by identifying 3 areas of weakness of Behaviorism:

        a.   the limited range of behaviors possible for research in a laboratory type setting

        b.   the fact that these theories were unable to account for the acquisition of new responses to situations

        c.   that is dealt with only one type of learning, i.e., direct learning, where the learner performs a response and experiences the consequences. (Bandura referred to this type of learning as *instantaneous matching*. Bandura referred to indirect learning as *delayed matching* where the learner observes reinforced behavior and later enacts the same type of behavior.

I.   Define:
Social cognitive theory defines learning as *an internal mental process that may or may not be reflected in immediate behavioral change* (Bandura, 1986).

II.   Assumptions / Basic Principles
1.   People learn by observing others: Modeling (3 types of modeling).
Generally, cognitive modeling involves modeled demonstrations, together with verbal descriptions of the model's thoughts and actions.

2.   Learning is internal.

3.   Learning is goal-directed behavior.

4.   There are 3 types of reinforcers of behaviors:
a.   direct reinforcement -- Direct reinforcement would be directly experienced by the learner.
b.   vicarious reinforcement -- Vicarious reinforcement would be observed to be consequences of the behavior of the model.
c.   self reinforcement -- Self reinforcement would be feelings of satisfaction or displeasure for behavior gauged by personal performance standards.

1.   Self-regulated behavior is essential to the learning process.
   ■   Self-regulation of behavior is the process of one using one's own thoughts and actions to achieve a goal.
   ■   Self-regulated learners identify goals and adopt and maintain their own strategies for reaching the goals.
   ■   Without self-regulation, people would not maintain behavior until it could reinforced.

   **   Self-regulations is critical to understanding Soc. Cog. theory because a lot of human behavior occurs without immediate reinforcement/punishment. Often, the consequences for behavior are to far down the road into the future to effect current behavior.
A)   4 parts to Self-regulated behavior

   1.   Goal setting
Critical to self-regulated behavior because they help to establish a purpose for one's actions and provide a means of measuring one's progress.

   2.   Self-observation
Once goals have been set, learners monitor themselves to determine their progress. Self-monitoring behavior can be taught in a variety of ways.
**   Often used as a means of scaffolding.

   3.   Self-assessment
Teachers don't necessarily have to be the only one's doing assessment; students can be taught self-assessment skills. ** Time consuming -- students need to make sure that their goals are specific and quantitative in nature (ex. running).

   4.   Self-reinforcement
We tend to feel good about the things we accomplish and regretful or guilty about the things we don't accomplish. The point is that as individual's become more self-regulated, they learn to reinforce and punish themselves. Often, self-reinforcers and self-punishers are one's feelings -- the most powerful form of self-reinforcement is the feeling of accomplishment after successfully setting and meeting challenging goals.

5.   Reciprocal Causation/Determination
Learning involves the interaction of several factors, such as behavior, environment, storing information in memory and personal factors (i.e., beliefs & expectations: e.g., relevant to ability).
Such interactive effects are considered "mutually influencing" -- usually referred to as *reciprocal*

causation / determination. For Bandura, it is through the observations of models that an individual's perceptions and actions influence their cognitive development.

Ex.: You get a low score on an algebra test (environmental factor) which influences your belief (personal factor) about your ability to do algebra. Your belief, in turn, influences your behavior -- in this case, it's your study habits -- and your behavior influences the environment -- in this case, you got a tutor to help you study.

6.   Indirect -vs- Direct Effects of Reinforcement & Punishment on Learning
   A.   Enactive learning
        Enactive learning involves learning from the consequences of one's actions. Behaviors that result in successful consequences are retained; those that lead to failures are refined or discarded.
   B.   Vicarious Experiences
        Occurs when people observe the consequences of another person's actions and adjust their own behavior accordingly. Vicarious sources accelerate learning over what would be possible if people had to perform every behavior for learning to occur. Vicarious sources also save people from personally experiencing negative consequences.

        Two types: Vicarious reinforcement & Vicarious Punishment.

   C.   Expectations.
        For behaviorist, punishment & reinforcement are direct causes of behavior; however, for social cognitive theorists, reinforcement and punishment cause individuals to form expectations about consequences that are likely to result from various behaviors.

        Ex.: If you study well and do well on a test, you expect to do well on a second test with a similar amount of study. If you see someone else being reinforced for a given behavior, you expect to reinforced for a similar behavior.

        ****   Reinforcement and punishment only changes behavior when learners know what behaviors are being reinforced or punishment.
        **   Implication for teachers: a) specifiy what behaviors will be reinforced so that students can adapt their behavior accordingly, & b) learners need feedback so that they can know what behaviors have resulted in desirable consequences.

   B.   Cognitive Processing
        How we process information when we experience the reinforcement/punishment directly vs indirectly can be quite different.
        Intensity of reinforcement and punishment from an emotional perspective.

           E. Choice of Behavior
        We can choose how to respond to a given situation based on the consequences we see others experience.

   F.   Non-occurrence of Expected Consequences
        When we see the consequences experienced by others, we tend to expect similar consequences if we behave in a similar manner. However, similar behaviors don't always result in similar consequences. Ex.: Leigh Scott Case Study = different outcomes for similar behaviors.

I. Modeling Processes

Modeling is a general term that refers to behavioral, cognitive, and affective changes deriving from observing one or more models.

The _characteristics of models_ is an important factor in determining the degree to which the attention is paid to the model by the learner.

The response of the learner to the modeling behavior is largely determined by three sets of factors:
1.) the particular attributes of the model, such as relevance and credibility for the observer;
2.) the prestige of the model, and
3.) the satisfaction already present in the situation where the behavior is being modeled.

A second determinant of the models success is the nature of the observer. Those with a poor sense of self esteem and those who lack self confidence are more prone to adopt the behavior of models.

A. Types of Models
1. Direct Modeling
   - Simply attempting to imitate the model's behavior.
   - Live models include family members, friends, work associates and others with whom the individual has direct contact.

1. Symbolic Modeling
   - Imitating behaviors displayed by characters in books, plays, movies, or television. .
   - The symbolic model is a pictorial representation of behavior.

1. Synthesized Modeling
   -- Developing behaviors by combining portions of observed acts.
   Ex.: A child uses a chair to get up and open the cupboard door after seeing her brother use a chair to get a book from a shelf and seeing her mother open the cupboard door.

B. Functions of Modeling
Response facilitation -- Social prompts create motivational inducements for observers to model the actions ("going along with the crowd"). Models can strengthen existing behaviors. (ex.: standing ovation -- we already know the behavior, but when we see others do it, we tend to follow suit). We can also learn behaviors that we didn't know prior to observing models.
Inhibition/Disinhibition -- Inhibitions are self-imposed restrictions on one's own behaviors. Modeling can either strengthen or weaken one's given inhibition(s). Unlike facillitating an existing behavior, inhibitions involve socially unacceptable behaviors, such as breaking classroom rules or general laws. (ex.: Los Angeles riots and looting; Pedestrians at a red light are more likely to obey or disregard the red light if they see others doing the same; Students are less likely to speak without permission if they see peers reprimanded for doing so.). Modeled behaviors create expectations in observers that similar consequences will occur should they model the actions.
Observational learning--A key mechanism in observational learning is the information conveyed by models to observers of ways to produce new behaviors. Subprocesses include attention, retention, production, and motivation.

C. Cognitive Skill Learning
Observational learning expands the range and rate of learning. Two especially germane applications of modeling to instruction are _cognitive modeling_ and _self-instructional training_.
Cognitive modeling incorporates modeled explanation and demonstration with verbalization of the model's thoughts and reasons for performing given actions.
Self-instructional training seeks to teach students how to regulate their own activities during learning.
   Five step procedure:
   a) Cognitive modeling,
   b) Overt guidance,
   c) Overt self-guidance,
   d) Faded overt self-guidance,

D. Motor Skill Learning
   According to social cognitive theory the learning of motor skills involves constructing a mental model that
   provides the conceptual representation of the skill for response production and serves as the standard for
   correcting responses subsequent to receiving feedback. The conceptual representation is formed by
   transforming observed sequences of behaviors into visual and symbolic codes to be cognitively rehearsed.

An important point in the social cognitive theory is that the learners behavior is guided by cognitive processes rather
than formed or shaped by reinforced practice. Four component parts are responsible for the learning and
performance acquisition. These are:

V. <u>4 Basic Elements Involved in Learning from Models</u>

   1.   Attention:
   Observer characteristics
   perceptual /cognitive capacities
   arousal level
   past performance
   Event characteristics
   relevance
   affective valence
   complexity
   functional value
   model's characteristics
   intrinsic rewards

   1.   Retention:
   Observer characteristics
   cognitive skills
   Event characteristics
   cognitive organization
   cognitive rehearsal

   1.   Motor Reproduction (physically capable):
   Observer characteristics
   physical capabilities
   subskill mastery
   Event characteristics
   selection & organization of responses
   feedback

   1.   Motivation — To Soc. Cog. Theorists, reinforcers motivate behavior.:
   Observer characteristics
   incentive preference
   social bias
   internal standards
   Event characteristics
   external reinforcement
   self-reinforcement
   vivacious reinforcement

VI.   The Self-regulatory System and Self-Efficacy
    A.   In Bandura's later work he introduces two other aspects to his Social Learning Theory. These are his work on the self-regulatory system and self-efficacy. In the area of self-regulatory system/self-evaluative behaviors he said that this system is based upon cognitive subprocesses that:

perceive,
evaluate and
regulate behavior.

    A.   These processes are based upon the standards for one's behavior and capabilities of cognitive structures that provide referents for behavior and its outcomes. These standards are based upon one's:

self observation,
self judgment
self response
self evaluations

    A.   The third area of Dr. Bandura's work deals with the area of ones perception of one's self-efficacy in dealing with a situation. Perceived self-efficacy is the belief that one can execute behavior to produce outcome. It influences behavior in three ways:

choice of behavior
quality of individual performance
persistence

Dr. Bandura's definition of aptitude, itself, illustrates the importance he places on self-efficacy in his learning theory. He says that *the concept of ability is not a fixed attribute in our repertoire, rather it is a generative capability which cognitive, motivational, emotional and behavioral skills must be organized and effectively orchestrated to serve diverse purposes*

<u>Self-efficacy</u> is the conviction that one can successfully accomplish the behavior required to produce a particular outcome. It is a judgment about how well one can organize and implement effective strategies in a situation that may include novel and often stressful elements.

    A.   Self-efficacy-activated processes are based on four areas:
cognitive
motivtional
emotional
selective

People with weak belief in their self-efficacy
shy away from difficult tasks (personal threats)
have low aspirations and weak commitment to the goals they choose
maintain a self diagnostic focus (rather than how to perform)
dwell on personal deficiencies, obstacles & adverse outcomes
attribute failures to deficient capabilities
slacken their efforts or give up quickly in face of difficulty
slow to recover their sense of efficacy after failures or setbacks
prone to stress & depression

People with strong belief in their efficacy
set challenging goals & sustain strong commitments to their goals
approach difficult tasks as challenges rather than as threats
maintain a task diagnostic focus
attribute failures to insufficient effort
heighten effort in face of difficulties
quickly recover their sense of efficacy after failure or setback
display low vulnerability to stress & depression

Perceived self-efficacy is visible in schools as it sets up a cue in the intellectual process:
student beliefs in their own self-efficacy
individual teachers perceived self-efficacy in their ability to perform effectively with their difficult students
staffs perceived efficacy that their schools can perform

The sources of perceived self-efficacy are:
performance / accomplishments
vicarious experience
social persuasion
physiological state

The 3 types of cognitive motivators around which theories have been built:
cognized goals
outcome expectancies
retrospective reasoning about perceived causes of success & failure

II   Self-efficacy's Affect on Behavior

   1.   Choice of behavior
   2.   Effort & persistence
   3.   Learning & Achievement

Suggested Readings:
4.   Bandura, A. (1977). Social Learning Theory. Englewood Cliffs, N.J.: Prentice-Hall, p.22.
5.   Bigge, Morris L. and S. Samuel Shermis (1992). Learning Theories For Teachers. Harper-Collins Pub. Inc. p.160.
6.   Deci, Edward L., Luc G. Pelletier, Richard M. Ryan and Robert J. Vallerand (1991). Motivation and Education: The Self-Determination Perspective. Educational Psychologist, 26(3&4), pp 325-346.
7.   Gredler, Margaret E. (1992). Theory Into Practice. Learning and Instruction, p.307.
8.   Klein, Stephen B. (1991). Principles and Applications. Learning. McGraw-Hill, Inc. p.204.
9.   Tudge, Jonathan R. H. and Paul A. Winterhoff (1993). Vygotsky, Piaget and Bandura: Perspectives on the Relations Between the Social World and Cognitive Development. Human Development, 36, pp 61-81.
10. Rafferty, Cathleen (1993 Summer) Processional Self-Efficacy: Preparing Teachers for Professional Development Schools. Contemporary Education, 64 (4) p.226.