

## [Social Cognitive Theory\\*](#)

Danice Stone - University of South Florida

[http://www.med.usf.edu/~kmbrown/Social\\_Cognitive\\_Theory\\_Overview.htm](http://www.med.usf.edu/~kmbrown/Social_Cognitive_Theory_Overview.htm)

**Originator of Theory:** Albert Bandura, Ph.D. Bandura obtained his Ph.D. from the University of Iowa in 1952. In 1953, Bandura was offered a position at Stanford University, and he is still there on faculty today.

**Approximate Year of Origin:** The Social Cognitive Theory (SCT) stemmed from the Social Learning Theory (SLT), which has a rich historical background dating back to the late 1800's. Albert Bandura first began publishing his work on SLT in the early 1960's. In 1986, Bandura officially launched the SCT with his book *Social Foundations of Thought and Action: A Social Cognitive Theory*.

**Circumstances that led to the development of the Theory:** The SCT has its origins in the discipline of psychology, with its early foundation being laid by behavioral and social psychologists. The SLT evolved under the umbrella of behaviorism, which is a cluster of psychological theories intended to explain why people and animals behave the way that they do. Behaviorism, introduced by John Watson in 1913, took an extremely mechanistic approach to understanding human behavior. According to Watson, behavior could be explained in terms of *observable* acts that could be described by stimulus-response sequences (Crosbie-Brunett and Lewis, 1993; Thomas, 1990). Also central to behaviorist study was the notion that contiguity between stimulus and response determined the likelihood that learning would occur.

Since this time, the stimulus-response pathway has been a point of debate among behaviorists. This debate stems over whether there exists some mediating factor between stimulus and response that regulates behavior. Opinions on this have been divided over whether behavior is primarily governed consequently - by rewards or punishments, or antecedently - through feedback. Various mediating variables have been proposed throughout the history of behaviorism, including William James' habit (later adopted by Watson), Freud's instinct, and Tolman's cognitions (Woodward, 1982).

Social psychologists also made important contributions to the development of the SLT (Crosbie-Brunett and Lewis, 1993). The earliest contribution to learning theory was from William James in 1890, whose notion of the 'social self' laid the foundation for the modern SLT tenet of the interaction between personal factors and the environment. This work was further developed by the work of Kurt Lewin (1890-1947), who extended Gestaltist's field theory by initiating a shift in psychology from a focus on the individual to a focus on processes between individuals (Crosbie-Brunett and Lewis, 1993).

Personality theorist Alfred Adler (1870-1937) introduced several concepts that are upheld in the present day SLT. Adler posited that a person's behavior is purposeful and motivated by a pursuit of goals. Moreover, he emphasized the importance of one's perception of, and attitude toward, the environment as significant influences on behavior. In addition, his view that a person's thoughts, feelings, and behaviors are transactions with one's physical and social surroundings is a precursor to reciprocal determinism (Crosbie-Brunett and Lewis, 1993).

In the 1930's, Tolman promoted the idea that unobservable variables (or cognitions) played a mediating role between stimulus and response (Tolman, 1932) and introduced the term expectancy. Thus, with the introduction of cognitions as a driving force behind behavior, combined with the important role of the environment, the three domains of the SLT were articulated at this time. However, it was not until the 1950's that all three domains were integrated into a comprehensive SLT.

The Social Learning Theory (SLT) was officially launched in 1941 with Miller and Dollard's publication of *Social Learning and Imitation*. Their SLT incorporated the principles of learning: reinforcement, punishment, extinction, and imitation of models. Their book was written to explain how animals and humans model observed behaviors, which then became learned through environmental reinforcements. In addition, according to Miller and Dollard, human behavior was motivated by drives, and one organism's

responses could serve as stimuli for other organisms. This work expanded on the reciprocal relationship between environment and behavior, while incorporating the beginnings of an internal mediating variable (in this case, drives) into the model. From Miller and Dollard's work came a flood of different versions of SLT. Subsequent work in the behaviorist field changed from a focus on the development of theoretical models, to an emphasis on conducting empirical studies (Woodward, 1982).

**Overview of the Current SLT Perspective:** Currently there exists a subset of theories that are based on social learning principles and place an emphasis on cognitive variables. Whereas strict behaviorism supports a direct and unidirectional pathway between stimulus and response, representing human behavior as a simple reaction to external stimuli, the SLT asserts that there is a mediator (human cognition) between stimulus and response, placing individual control over behavioral responses to stimuli. While there are several versions of the SLT to which researchers currently subscribe, they all share three basic tenets (Woodward, 1982; Jones, 1989; Perry et al., 1990; Thomas, 1990; Crosbie-Brunett and Lewis, 1993).

**Tenet 1:** Response consequences (such as rewards or punishments) influence the likelihood that a person will perform a particular behavior again in a given situation. Note that this principle is also shared by classical behaviorists.

**Tenet 2:** Humans can learn by observing others, in addition to learning by participating in an act personally. Learning by observing others is called vicarious learning. The concept of vicarious learning is not one that would be subscribed to by classical behaviorists.

**Tenet 3:** Individuals are most likely to model behavior observed by others they identify with. Identification with others is a function of the degree to which a person is perceived to be similar to one's self, in addition to the degree of emotional attachment that is felt toward an individual.

**Albert Bandura** Bandura has led the efforts on cognitive SLT development (Bandura and Walters, 1963; Bandura, 1977a;1978;1986;1989). Bandura's SLT places a heavy focus on cognitive concepts. His theory focuses on how children and adults operate cognitively on their social experiences and how these cognitions then influence behavior and development. His theory was the first to incorporate the notion of modeling, or vicarious learning, as a form of social learning. In addition, Bandura also introduced several other important concepts, including reciprocal determinism, self-efficacy, and the idea that there can be a significant temporal variation in time lapse between cause and effect. In 1986, Bandura renamed his SLT, Social Cognitive Theory (SCT), as better description of what he had been advocating since the 1960's (Bandura, 1986). This name change was also likely the result of an effort to further distance himself and his theory from the behaviorist approach.

Bandura's work has stimulated an enormous amount of research on learning and behavior, and has been extremely fruitful in developing techniques for promoting behavior change. In addition, his more recent work has been redirected from developmental psychology to the field of health psychology. A literature review of SLT applications in public health revealed that Bandura's SLT was the version most commonly used. Moreover, his theory is characterized by a broader and more generalized scope than other SLT versions. For example, Akers' SLT incorporates a narrowed focus on some of the prominent concepts from Bandura's SLT.

#### **Purpose of Theory:**

- ? To understand and predict individual and group behavior
- ? To identify methods in which behavior can be modified or changed.
- ? Frequently used in interventions aimed at personality development, behavior pathology, and health promotion

#### **Overview of the Social Cognitive Theory:**

The SCT defines human behavior as a triadic, dynamic, and reciprocal interaction of personal factors, behavior, and the environment (Bandura, 1977a;1986;1989). According to this theory, an individual's behavior is uniquely determined by each of these three factors. While the SCT upholds the behaviorist notion that response consequences mediate behavior, it contends that behavior is largely regulated antecedently through cognitive processes. Therefore, response consequences of a behavior are used to form expectations of behavioral outcomes. It is the ability to form these expectations that give humans the capability to predict the outcomes of their behavior, *before* the behavior is performed. In addition, the SCT posits that most behavior is learned vicariously.

The SCT 's strong emphasis on one's cognitions suggests that the mind is an active force that constructs one's reality, selectively encodes information, performs behavior on the basis of values and expectations, and imposes structure on its own actions (Jones, 1989). Through feedback and reciprocity, a person's own reality is formed by the interaction of the environment and one's cognitions. In addition, cognitions change over time as a function of maturation and experience (i.e. attention span, memory, ability to form symbols, reasoning skills). It is through an understanding of the processes involved in one's construction of reality that enables human behavior to be understood, predicted, and changed.

### **Key Constructs:**

**Reciprocal Determinism:** The SCT explains behavior in terms of a triadic, dynamic and reciprocal interaction of the environment, personal factors, and behavior. However, this reciprocal interaction does not imply that all sources of influence are of equal strength. The SCT recognizes that some sources of influence are stronger than others and that they do not all occur simultaneously. In fact, the interaction between the three factors will differ based on the individual, the particular behavior being examined, and the specific situation in which the behavior occurs (Bandura, 1989). Thus, this model of causation as proposed by the SCT is extremely complex.

The person-behavior interaction involves the bi-directional influences of one's thoughts, emotions, and biological properties and one's actions (Bandura, 1977a;1986;1989). For example, a person's expectations, beliefs, self-perceptions, goals, and intentions give shape and direction to behavior. However, the behavior that is carried out will then affect one's thoughts and emotions. The SCT also accounts for biological personal factors, such as sex, ethnicity, temperament, and genetic predisposition and the influences they have on behavior.

A bi-directional interaction also occurs between the environment and personal characteristics (Bandura, 1977a;1986;1989). In this process, human expectations, beliefs, and cognitive competencies are developed and modified by social influences and physical structures within the environment. These social influences can convey information and activate emotional reactions through such factors as modeling, instruction, and social persuasion (Bandura, 1986). In addition, humans evoke different reactions from their social environment as a result of their physical characteristics, such as age, size, race, sex, physical attractiveness.

The final interaction occurs between behavior and the environment. Bandura contends that people are both products and producers of their environment (Bandura, 1977a;1986;1989). A person's behavior will determine the aspects of their environment to which they are exposed, and behavior is, in turn, modified by that environment. A person's behavior can affect the way in which they experience the environment through selective attention. Based on learned human preferences and competencies, humans select whom they interact with and the activities they participate in from a vast range of possibilities. Human behavior also influences their environment, such as when an aggressive person creates a hostile environment. Thus, behavior determines which of the many potential environmental influences come into play and what forms they will take. In turn, the environment partly determines which forms of one's behavior are developed and activated (Bandura, 1989).

Inherent within the notion of reciprocal determinism is the concept that people have the ability to influence their destiny, while at the same time recognizing that people are not free agents of their own will. Humans are neither driven by inner forces nor automatically shaped and controlled by the environment. Thus, humans function as contributors to their own motivation, behavior, and development within a network of reciprocally interacting influences. Within this SCT perspective, humans are characterized in terms of five basic and unique capabilities: symbolizing, vicarious, forethought, self-regulatory, self-reflective (Bandura, 1986;1989). It is these capabilities that provide humans with cognitive means by which to determine behavior.

**Symbolizing Capability:** The SCT maintains that most external influences effect behavior through cognitive processes (Bandura, 1989). However, Bandura suggests that it is *symbols* that serve as the mechanism for thought. Through the formation of symbols, such as images (mental pictures) or words, humans are able to give meaning, form, and contiguity to their experiences. In addition, the capability to form symbols enables humans to store information in their memory that can be used to guide future behaviors. It is through this process that humans are able to model observed behavior.

Symbols provide the mechanism that allows for cognitive problem solving and engaging in foresightful action. It is through *foresight* that one can think through the consequences of a behavior without actually performing the behavior (Bandura, 1989). Research indicates that indeed much of human thought is linguistically based, and that there is a correlation between cognitive development and language acquisition (Bandura, 1991).

**Vicarious Capability:** Vicarious processes refer to the human ability to learn not only from direct experience, but also from the observation of others. *Observational learning* allows one to develop an idea of how a new behavior is formed without actually performing the behavior oneself (Bandura, 1977a;1986;1989). This information can then be coded (into symbols) and used as a guide for future action. Vicarious learning is important in that it enables humans to form patterns of behavior quickly, avoiding time-consuming trial and error, as well as avoiding costly and even fatal mistakes. In addition, vicarious capabilities allows one to explore situations and activities for the attainment of new knowledge that would normally be out of reach due to constraints on time, resources, and mobility. For example, TV has vastly expanded the range of models and behaviors one is exposed to every day, allowing people to transcend the boundaries of their own environment (Bandura, 1986).

Observational learning is governed by four processes: *attentional span*, *retention processes*, *motor reproduction processes*, and *motivational processes* (Bandura, 1969;1977;1986;1989). Attentional span refers to a person's ability to selectively observe actions and behaviors in his or her environment. In addition, attentional span mediates the specific information that is extracted from each observation. There are specific observer characteristics as well as modeled activity characteristics that regulate the type and amount of observation that is experienced. For example, the complexity and salience of a modeled activity will influence the amount of attention a person gives to that activity. In addition, the observer is most likely to *selectively attend to*, and model, behaviors of people that are most like themselves and those that they associate with the most. Observed behavior or activities can only be modeled if they are retained in one's memory. Retention processes are made possible by the human ability to form *symbols* from observed behavior that are stored in one's memory. Once symbols are formed and stored in one's memory, they must be converted into appropriate action for modeling to occur. This process is referred to as motor reproduction processes. Last, the degree to which a behavior is seen to result in a valued outcome (*expectancies*) will influence the likelihood that one will adopt a modeled behavior (the *motivational process*).

**Forethought Capability:** According to the SCT most human behavior is purposive and regulated by *forethought*. Forethought is a person's capability to motivate themselves and guide their actions anticipatorily (Bandura, 1989). While the SCT holds that stimuli influences the likelihood of a behavior through the predictive function of an outcome, the stimuli is not automatically linked to the response by contiguity. Instead, previous experiences create expectations of the outcome that will occur as a result of performing a behavior, before the behavior is performed. Therefore, *expectations* of behavioral outcomes,

more so than actual outcomes, influence the likelihood that a behavior will be performed again. *Expectancies* refer to a person's evaluation of the anticipated outcome. The capacity to regulate one's behavior based on expectations and expectancies provide the mechanism for *foresightful* behavior. Foresightful behavior is possible because of the human capability to symbolize. It is through the process of forming symbols that allow a person to represent future events cognitively in the present. Behavior is then influenced when forethought is translated into incentives and action through the self-regulatory mechanism.

**Self-Regulatory Capability:** Bandura proposes that *self-regulatory* systems mediate external influences and provide a basis for purposeful action, allowing people to have personal control over their own thoughts, feelings, motivations, and actions (Bandura, 1989). Self-regulation is an internal control mechanism that governs what behavior is performed, and the self-imposed consequences for that behavior. Self-regulation is extremely important because it allows the gradual substitution of internal controls for external controls of behavior.

Self-regulation occurs through the interplay of self-produced and external sources of influence, including motivational standards and social and moral standards. The employment of motivational standards as a guide for behavior is a process of *discrepancy production* (goal setting) and *discrepancy reduction* (work to attain a goal) (Bandura, 1977a;1986;1989). People continually go through the process of setting goals for themselves and then comparing that goal to their personal accomplishments. In doing so, standards can motivate a person to work harder or modify their behavior in order to meet a goal or standard. Motivation can occur externally, such as a promised monetary reward for receiving an 'A' in a class, or internally, such as when a person feels self-pride when a standard is reached. Three factors seem to determine the degree of self-motivation that occurs (Bandura, 1986;1989). First, a person's *self-efficacy* for a given behavior dramatically effects their self-motivation for performing that behavior. If a person feels they are capable of achieving the goal, then they are likely to worker harder and give up less easily compared to a person who has low self-efficacy. A second essential factor for self-motivation is *feedback*. Through feedback, a person is able to control or adjust their efforts and goals to make them more feasible and realistic. In addition, receiving feedback on performance accomplishments will improve a person's self-efficacy for the behavior. The third factor that influences self-motivation is the *anticipated time to goal attainment*. Proximal goals are more effective than distal goals in enlisting self-motivation.

Social and moral standards also regulate behavior. The relationship between thought and conduct is mediated through the *exercise of moral agency* (Bandura, 1986;1989). Through evaluative *self-reactions*, such as self-approval or self-reprimand, internalized morals and standards can regulate conduct (Bandura, 1986;1991). For example, if a person internalizes the notion that stealing is bad, then they will impose self-sanctions in order to keep their conduct in line with this internal standard. Therefore, if a person is faced with a decision of stealing or not stealing, he or she would anticipate that this action would violate their internal standards and result in self-criticism. As a result, they would self-regulate their own behavior by deciding not to steal.

The development and nature of a moral agency has been the topic of much research. In general, it is thought that people develop moral standards from a variety of influences, such as direct instruction, feedback on behaviors from significant others, and modeling of moral standards by others (Bandura, 1986;1989;1991). Standards are also developed from institutionally organized systems, such as education, media, religion, political, and legal agencies. Bandura contends that observation of behavior often outweighs verbal instruction as an influence on children's internalization of morals and standards. However, the fact that people often differ in the standards that they model (such as changing standards in different social settings), the impact of modeling on the development of personal standards is reduced (Bandura, 1989;1991). People do not passively absorb all the standards of behavior to which they are exposed. Instead, the standards that are internalized are dependent on the degree to which the model is like oneself, the value of an activity, and one's perception of their degree of personal control over the behavior (*locus of control*). It is through the process of self-regulation that prosocial behavior can be internally maintained (Bandura, 1989,1991).

**Self-Reflective Capability:** *Self-reflection* enables people to analyze their experiences, think about their own thought processes, and alter their thinking accordingly. One of the most important types of self-reflection is *self-efficacy*. Self-efficacy has received an enormous amount of attention in health-related research in the last five years. In fact, self-efficacy has become a central focus of Bandura's research, as he contends that self-efficacy is a major determinant of self-regulation. Self-efficacy is a type of self-reflective thought that effects one's behavior (Bandura, 1977b;1989). According to the SCT, people develop perceptions about their own abilities and characteristics that subsequently guide their behavior by determining what a person tries to achieve and how much effort they will put into their performance (Bandura, 1977b).

A person's self-efficacy develops as a result of their history of achievement in a particular area, from observations of others successes and failures, from the persuasion of others, and from one's own physiological state (such as emotional arousal, nervousness, or anxiety) while performing a behavior (Bandura, 1977b). Social comparison of one's own performance to the performance of others, especially peers or siblings, also serves as a strong source of self-efficacy. In addition, schools are considered a strong source of self-efficacy. This is an important consideration in today's society where schools are based on the evaluation of students by comparing individual performance to the group's performance. For those students who lag behind or have trouble with academics, this type of evaluation can result in severe deficiencies in self-efficacy (Rosenholtz and Rosenholtz, 1981).

### **Usefulness of Theory in Public Health:**

The SCT has been used to study a wide range of health problems, from medical therapy compliance, to alcohol abuse, to immunizations. One particularly fruitful area of investigation to which the SCT has been employed is the study of moral and value internalization among children. In fact, it has been argued that the greatest contribution of the SCT is its aid in understanding how children are socialized to accept the standards and values of their society (Johnston et.al, 1997). Indeed, this is a topic to which Bandura himself devoted extensive research efforts (Bandura and McDonald, 1963; Bandura, 1989;1991; Bandura and Jordan, 1991).

A number of SCT techniques are currently used in interventions:

- ? Modeling
- ? Skill Training (reasoning) - psycho motor and social skills (refusal skills) behavioral rehearsal
- ? Self-Monitoring - a contract with oneself
- ? Contracting - contracting with others; a reward may be involved; specific behaviors; goals; signatures

### **Limitations:**

- ? The theory's comprehensiveness and complexity make it difficult to operationalize
- ? Many applications of the SCT focus on one or two constructs, such as self-efficacy, while ignoring the others.