

11. Social Cognitive Learning Theory: Bandura and Others

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In the agentic sociocognitive view, people are self-organizing, proactive, self-reflecting, and self-regulating, not just reactive organisms shaped and shepherded by external events . . . The capacity to exercise control over one's thought processes, motivation, affect, and action operates through the mechanism of personal agency.

—Albert Bandura¹

Monkey see, monkey do.

— Old saying

Learning Aggression through Observation: A Brief Introduction to Social Cognitive Learning Theory

Social Cognitive Learning Theory and Socialization Processes

Socialization refers to the processes by which people in a given society learn socially acceptable patterns of behavior. Included among these behaviors are approved forms of aggression (e.g., sports; hunting), gender-roles (i.e., which behaviors are considered appropriate for males and which for females), and forms of pro-social behavior (e.g., helping behavior; volunteerism). Among other things, ***social cognitive learning theory*** (SCLT) addresses how human learning takes place in socialization processes. In particular, a special kind of learning called ***observation learning*** takes place through observing the behavior of others who serve as ***models*** for the behavior. A very good example of observational learning comes from Albert Bandura's studies of learned aggression in children in a now famous series of experiments involving the adult modeling of aggressive behavior directed toward a child's toy known as a bobo doll. These experiments are described next.

An Example of Observational Learning: The Bobo Doll Studies

A bobo doll is a child's toy. It is an inflatable clown-like figure that stands a bit taller than a small child with a base of sand to keep it weighted and standing. Knock it down and it pops right back up again. In a truly insightful series of experiments Albert Bandura and his colleagues (Bandura, 1965; Bandura & others, 1961) studied four-year olds' aggression in response to observing adults' treatment of this doll in a film. The adult model – a woman – repeatedly kicked, punched, and even sat on while punching, the bobo doll while repeating phrases like “pow,” “sockeroo,” and “hit him down.” The adult appeared to enjoy this seemingly harmless yet highly aggressive behavior. Three experimental conditions were as follows:

- In one of these experimental conditions (reinforcement condition) the model was verbally rewarded by another adult for this aggressive behavior and also given sweets.
- In another the adult was verbally reprimanded and called a “bully” by another adult (punishment condition).
- In a third condition the adult was neither rewarded nor punished (no consequences condition).

The interesting research question concerned what the children would do after observing the adult's behavior when placed in the same room with the doll and other toys, but in particular, under which circumstances, if any, would they mimic or adopt the observed behavior?

The answer was that in both the reinforced and the no consequences conditions the children tended to mimic the behavior of the adult – often with great enthusiasm and creativity. But in the punishment condition, by contrast, they tended to avoid performing such aggressive behavior. Then in a follow-up experiment the children in each condition were asked if they could demonstrate the behavior of the adult, for which they would be rewarded with “goodies” such as sweets. *All* of the children were able to mimic

the adult's aggression when asked to do so under this condition. Note also that many of these specific forms of aggression were novel and had not been previously learned by these children just from watching the film.

These results might well have been predicted by the reader, or perhaps by almost any unbiased observer based on common sense. Yet they did not fall in line with the traditional learning theory's (TLT) paradigm of learning by association, for the several reasons that follow.

- ***Number of trials:*** TLT assumes that learning requires many trials. But Bandura referred to his results as “no trial” learning because the children learned these aggressive acts without having to first perform them, even once. In observational learning behaviors are learned simply by observing another person who serves as a model for that behavior.
- ***Necessity of reinforcement:*** TLT assumes that learning only takes place *after* the behavior is reinforced (or rewarded). In this experiment the children were not explicitly rewarded after performing the aggressive acts; rather –
- ***Role of cognition:*** The children were able to *imagine* the consequences of behavior, and even mentally test them out, which are cognitive acts – Bandura called the imagined consequences ***vicarious reinforcement***. But recall that behaviorists like Skinner claimed that cognition is *irrelevant* to learning.
- ***Learning in the absence of performance:*** Children can learn behaviors *without actually performing them*, as seen in the punishment condition, in which the children learned the behavior yet did not perform it for fear of the consequences. Proof that they really did learn these behaviors came in the second experiment, when the children were offered a reward for their performance and had no fear of punishment

Note, too, that children in the no consequences conditions could imagine being reinforced simply by the enjoyment of performing the aggressive acts, without having seen the adult being explicitly rewarded by another adult. They needed no extrinsic reward such as candy to motivate them.

Learning a behavior, then, does not necessarily require that a person first perform that behavior even once (much less several times), and it can be enough that a person envisions or imagines a reward (rather than actually receiving one) in order for that person to perform the behavior.

In more general terms Bandura's experiment demonstrated that aggressive behaviors can be learned by children who merely observe someone else (a model) performing the behavior and that they may tend to perform that aggressive behavior if they are not otherwise discouraged from doing so. The implications of these findings go well beyond the Bobo doll experiment, and an understanding of these findings are crucial to parenting practices. For example, should parents allow young children to watch violent movies or television programs without adequate supervision? (Further research findings into the issues of aggression, violence, and the media will be considered later.)

It is also important to note that the children did not simply copy the model's aggressive actions. They created their own forms of aggression as well. As an example, whereas the model used a hammer to beat the bobo doll, some children also pointed a toy gun at the doll or hit it with this gun, and also invented other means of abusing this object. In *abstract modeling* people learn behaviors (e.g., aggressive acts modeled by others) and make up their own new but related forms of behavior.

The Processes in Observational Learning

Observational learning was illustrated in the bobo doll studies in which children learned aggression through observation of a model. Bandura identified four processes that were requisite for such learning. These were:

1. **Attention.** It should be obvious that learning cannot take place unless the learner pays attentions to the model. Attention is

partly a function of the characteristics of the learner, which include such variables as interest in the subject and general arousal level, and also of the characteristics of the model, such as distinctiveness, attractiveness, or novelty. Bandura (1977) noted that television has a powerful attraction for both children and adults – it is very capable of drawing us in and grabbing our attention!

2. **Retention.** Learning cannot take place unless one retains (remembers) the observed situation. This ordinarily means remembering an entire sequence of actions, including mental images and possibly verbal descriptions. Young children rely more on images, so learning can often be facilitated by providing verbal cues or descriptions, as when the model in the bobo doll studies used phrases like “hit him.”
3. **Motor Reproduction.** The learner must be capable of performing the learned act. With children this is partly a function of developmental readiness. Sports heroes can make good role models for children, but if a basketball is too large for a small child to pick up then effective learning cannot take place.
4. **Motivation.** As was seen from the punishment condition in the bobo doll studies, a person can learn a behavior yet not be motivated to perform it. Motivating factors include past reinforcement (per TLT), or imagined or vicarious reinforcement (per the other two conditions).

People are social animals, and much that both children and adults learn comes from interacting with and observing others, and by making social comparisons of one’s self to others. The very fact that people can imagine the consequences of their behavior (vicarious reinforcement or punishment) speaks to the importance of cognition in human learning. But beyond this, Bandura recognized that humans can and do regulate their own behavior. They do this by monitoring (observing) their behavior, getting feedback from others, making self-judgments about how they are doing, and adapting or changing their behavior based on these self-observations, judgments, and comparisons. Indeed, the notion of

the self and therefore the self-concept are central ideas in SCLT even though these concepts were ignored by TLT.

These and related concepts of SCLT are developed more fully in subsequent sections. Although Albert Bandura is not the only psychologist who has influenced SCLT (others are discussed later), he has probably done more than anyone else to advance theory in this area; hence his ideas are highlighted in this chapter.

Bandura's Social-Cognitive Perspective On Psychology

Agency and Autonomy in Human Behavior

Per the first opening quote to this chapter Albert Bandura viewed people as proactive, self-organizing, self-regulating, and generally *agentic* (i.e., people are active agents in their lives, and are concerned with individualistic attainment and personal control; cf., Bakan, 1966).

Bandura's view of human nature is thus a world apart from B. F. Skinner's. Skinner viewed the human mind as an epiphenomenon and thought any belief in individual freedom or control illusory. The "self" to Skinner was a superfluous, meaningless concept. Yet Bandura's training, like Skinner's, was in learning theory, and he began his career with the notion that all human behavior could be explained by principles of learning.

The Causes of Behavior: Associations or Anticipations?

Bandura came to doubt the explanatory power of associationistic views on conditioning, which simply paired stimulus and response (classical conditioning) or response with reward (operant conditioning). While such associations might explain certain types of simple or rote learning, Bandura thought that simple association was insufficient as an explanation for most complex learned behavior. Instead he believed that human learning was mediated by cognition in the form of anticipation or expectation. Take, for example, a child the author knew when himself a small boy who learned to come home from play when his mother rang a large bell mounted on her back porch that could be

heard all over the neighborhood. In classical conditioning terms (just as with Pavlov and his dogs) the bell could be associated with a reward (eating) or perhaps with a punishment for not promptly returning home in response. But Bandura would no doubt say that the boy actively *anticipated* the thought of eating, or perhaps the fear of punishment, as consequences for his behavior. It really was *thinking* about the consequences that mediated his behavior. What the boy had learned was not a mere *association* but an *expectation*. Thus Bandura included cognitive elements in his psychology that were anathema to Skinner and the earlier behaviorists.

Now if one were to ask this boy why he hurried home in response to the bell he would probably say “because it’s time to eat,” or “I’ll catch heck if I don’t hurry home,” just as one might expect. In other words, the little lad probably had a very good understanding of psychological principles! To many people this explanation seems just a matter of common sense. Why, then, did earlier psychologists have such a problem with such an interpretation?

The answer may be partly because in the simplest cases people (or animals) are truly *not* aware of the reasons for their behavior. Perhaps Thorndike’s cats simply did learn to escape from their puzzle boxes because they built more complex response patterns on a foundation of simpler ones, without actually “anticipating” any consequences of their actions – if it can be said that a cat anticipates (and who, for that matter, can really understand the minds of cats anyway?). And perhaps the same may be said for Skinner’s pigeons, which learned the most complex behavior patterns based on, if Skinner was correct, the shaping of behavior over a long period of trials using appropriate schedules of reinforcements.

Arguably, Pavlov’s dogs and Thorndike’s cats did anticipate their future rewards. According to Raymond McCall (1983, p. 115):

There has been a widespread tendency among behaviorists to overlook the fact that the ‘conditioned response’ itself (for example the dog’s salivating in response to the ringing of the bell which has been associated with feeding) is only a small part of the total reaction, and this total reaction

appears to be dominated not by the small amount of salivation involved, but by the dog's cognition of the ringing bell as a signal of appropriate food Just because we have no direct experience of the dog's awareness is little reason for us to act as though the dog was *unaware*, and we can only do so by elaborate pretense. From the behaviorist's own behavior we can tell that he knows that the dog *hears* – a form of cognition – so why should he find it necessary to ignore or deny the obvious truth that the dog can *recognize* certain sounds as indicators or signals of other events, the appearance of which he then anticipates? It is certainly not a dog's behavior that requires this pretense, since his muscular tension, his turning of his head in the direction of the bell, the cocking of his ears, all fit in nicely with signal recognition; and the small amount of salivation may itself be regarded as preparatory or anticipatory.

In other words, there is more going on in the dog than can be easily observed in just its overt behavior – some important “inner events” are present as well that correlate with the outward, observed learning pattern.

But in the author's view there is another reason that behaviorists like Watson and Skinner did not accept such a simple and common sense explanation for human behavior. Mainly, they wanted psychology to be scientific and respectable, and took the physical sciences as a model – but especially Newtonian mechanics (which, in fact, was quickly becoming obsolete at the very time they were formulating their ideas). There was also the obvious failure of Titchener's structuralism in attempting to deal with mental phenomena (although today psychologists see William James's functionalistic ideas as much closer to the mark). Stimulus-response or response-reward principles provided psychology with similar mechanistic and deterministic explanations for natural events (in this case, behavior). In other words, psychology as a field suffered from “physics envy².” Viewing behavior as both mechanistic and deterministic simply made psychology seem more scientific.

SCLT and the Cognitive Revolution in Psychology

Around the end of the 1960s interest in behaviorism and traditional animal learning studies declined and the field of psychology was to change dramatically as the specialty of *cognitive psychology* emerged as a major force in what has come to be known as the *cognitive revolution* in psychology. As was the

case with behaviorism, cognitive psychology is an experimental, scientific discipline. One definition of cognition given by Ulric Neisser (1967, p. 4) is as follows: “[C]ognition refers to all the processes by which the sensory input is transformed, reduced, elaborated, stored, recovered, and used.” It is not that psychology in the past ignored sensation, perception, thinking, memory, and the like, but these were not studied by the dominant behaviorist school within the academy. A related recent trend is the study of *cognitive neuroscience*, which studies the nervous system and the psychophysiological correlates of behavior.

Bandura himself is, of course, a pioneering figure in this revolution. His ideas have evolved considerably since his behaviorist beginnings. The conceptual framework for psychology as he currently sees it is considered next.

Triadic Reciprocal Causation

The phrase *triadic reciprocal causation* sounds like a mouthful but it’s not. This is, rather, a scheme for representing the scope of psychological research as Bandura saw it. Let **B** stand for behavior, **P** for person (and all the person’s attributes; attitudes, cognitions, perceptions, biology, and so on), and **E** for environment – including the social milieu. Given these, it can be said that Skinner, Watson, and many of the other behaviorists ignored the person and studied the effects of the environment on behavior, i.e., **E** → **B**. This was not true of all early psychological theorists, however. Kurt Levin’s model was that **B** = f(**P**, **E**), or in other words, behavior is a function of the environment *and* the qualities of the person. But the fact that **B** was studied as *the* outcome or dependent variable definitely reflects the influence of behaviorism from the time when psychology was considered *only* the study of behavior.

Bandura rightly noted that much of psychology had advanced to the interactive study of the person and environment (per Levin) on behavior. But his range of study is much broader; behavior also influences people and environments, for instance. Various predictive schemes involving the three classes of variables are shown in Figure 10.1. Fig. 10.1a indicates the prediction of behavior from both personal and environmental factors, as some

personality and social psychological studies. In a typical experiment an individual difference variable – a trait for example – is crossed with an environmental predictor – varying the situation, for instance. In Fig. 10.1b the relationship between the personal and environmental variable is explored in a bidirectional pattern, with two-way arrows indicating the mutual influence of these two factors on one another. But the most general scheme for representing the domain of psychological discourse is given in Fig. 10.1c, in which the relationships among persons, environments, and behaviors are treated as *mutually* influencing one another. This is what Bandura means by the term triadic reciprocal causation. (Bandura earlier used the term *reciprocal determinism* synonymously with triadically reciprocal causation.)

Of course it isn't likely that any given study would examine all of the possible directions. Indeed, Bandura (1999, p. 157) noted that "Efforts to verify every possible interactant simultaneously would produce experimental paralysis." Some limited, special cases of one-way causation are:

- **P → B:** A cognitive psychologists looks at the way in which differing perceptions (person differences) mediate behavior.
- **E → P:** In social psychologist studies the ways in which environmental experiences influence attitudes (person variables).
- **P → E:** In social psychology person characteristics such as race, gender, or appearance may influence the social environment – they may elicit characteristic reactions based on prejudiced perceptions.

Self-Regulation of Behavior

As was seen, socialization is a very important concept in CSLT. As children mature they become more socialized and increasingly they learn to regulate and control their own behavior. They become more intrinsically motivated and less dependent upon external contingencies or what Skinner would call

environmental reinforcers (rewards and punishments). Put differently, people learn to reward and punish themselves based on internal, rather than external, standards.

Bandura identified three steps in the way that people regulate their behavior:

1. First, people are self-monitors. That is, they watch themselves and observe their own behavior and they watch the reactions of others to their behavior. Part of the process of self-regulation, therefore, is *self-observation*.
2. A second part of self-regulation involves making *judgments* about ourselves by comparing our performance to social standards or to our own, internal criteria for success.
3. And third, people reward or punish themselves by making a *self-response* or *self-reaction*.

Consider a couple of examples. One is a social gathering, such as when a business puts on an annual party for its employees. Although people go to such functions to enjoy themselves, they are also aware of the impressions that they make on others – in fact this is often more true than would be the case with a group of strangers. Everyone from the boss’s wife to the executive vice president to people in the sales force, marketing department, and so forth, is motivated to make a favorable impression on their coworkers (or at least to avoid making an unfavorable impression).

Self-observation in such a situation could take many forms. For example, people in the sales force might tend to talk about clients or recent successes. A typical salesperson might wish other to know that she or he has been productive and successful, yet not to brag too much or appear too competitive. Judgments can come into play at every point in their social interactions, but perhaps on the ride home a person will think back in reflection and find cause to feel good about these encounters, or conversely, find reasons to fault him/herself. The recollection itself can provide the reward or punishment, but one may give oneself a psychological pat on the back (“Good going, Jerry”), or thinks “Wow, I really talked too much about myself. That must’ve left a bad impression! Next time maybe I should stop at one cocktail . . .” And perhaps these

observations after the fact will lead to greater success at next year's party.

For another example, consider a shortstop on a baseball team who commits an error that causes the other team to win the game. The reader can readily construct an imaginary inner dialogue in which the player reflects on his performance then chastises himself (or perhaps finds an excuse or rationalization for the mistake). A professional player uses these observational, judgmental, and reactive processes to adjust his behavior in future circumstances.

Notice that evaluative judgments can be made comparatively, by seeing how one measure's up to someone else's performance, or strictly internally, where a person must measure up to her/his own personal standards. Or in fact, many performances can be judged by both criteria. As an example of a very internal evaluative process, the author knew a musician who received a rousing ovation following a performance, yet he could do nothing except rail against his own perception of being inadequate. He reasoned that the audience members were not musicians and they could not therefore appreciate how bad his performance had really been!

In Bandura's words, "Motivation based on personal standards involves a cognitive comparison process between the standards and perceived performance attainment. The motivational effects do not stem from the standards themselves but rather from several self-reactive influences" (1999, p. 167). Foremost among these influences is Bandura's concept of self-efficacy, considered in the next section.

Self-Efficacy and Performance

Self-efficacy refers to people's perceptions of their competence in various areas of functioning. One can feel efficacious (having a strong sense of self-efficacy) in athletics, for example, but not in academics. A school child may believe she is "good at" history but not math, or in other words, the child has relatively high self-efficacy in the first subject but very low self-efficacy in the second. Bandura states that belief in self-efficacy motivates success in that area. Thus children who believe that they are not good spellers (as an example) won't work as hard to achieve success in that subject. Conversely, children with high self-efficacy in an area (e.g.,

geography) will study even harder to succeed in the face of failure. In short, self-efficacy, or belief about one's capabilities in a given domain, is associated with higher motivation in that area, and therefore, greater success. Bandura believed (and research shows) that self-efficacy is a much better predictor of academic achievement than is self-esteem (or how good one feels about oneself). The lesson for parents and educators is clear. If children are motivated with a "can do" attitude in a given area they will likely succeed; if not, then they will likely fail.

Efficacy Appraisals. A person makes an ***efficacy appraisal*** whenever they reflect on their likelihood of success at a given endeavor. These appraisals lead directly to self-efficacy beliefs. Some sources of efficacy appraisals are (Bandura, 1999):

1. ***Actual success***, or mastery experience, at some task (e.g., a test of ability to convert fractions to decimals and vice versa). In short, *nothing succeeds like success!*
2. ***Vicarious experience***, or observing the success of others. ("If she can do it, so can I!") The idea of vicarious success, of course, relates directly to Bandura's observational learning and modeling.
3. ***Social persuasion***, or being convinced by someone else that one can succeed. In particular the person doing the persuading can help by facilitating more than by simply cheering a person on. A teacher can do this with a class in many ways. For example, in setting a series of ***sub-goals*** by dividing a complicated task into a sequence of simpler tasks.
4. ***Fatigued physical state, negative emotional states, and other misinterpretations of somatic sources of information.*** Being tense or anxious can affect self-efficacy beliefs. Being tired can as well. One must come to understand that these states are only temporary and should not affect self-efficacy under normal circumstances.

Realistic Self-Appraisals and Self-Efficacy. Bandura stated that "In appraising situations, people who are assured in their efficacy focus on the *opportunities* worth pursuing rather than

dwell on the *risks* . . . They take a future time perspective in structuring their lives” (1999, p. 182, emphasis added). Efficacious people set realistic goals for themselves and do not set their expectations too high, which sets one up for failure; nor do they set goals so low as to be underachievers. Bigger challenges can be met by focusing on sub-goals, or smaller steps that can be achieved along the way to achieving the larger goal.

People who are self-efficacious have positive yet *realistic* views of their abilities. In terms of self-regulation, they tend to use self rewards much more than punishments; *they celebrate their successes without dwelling on their failures.*

Collective Self-Efficacy. Many cultural psychologists (e.g., Triandis, 1995; Markus & Kitayama, 1991) distinguish between individualistic and collectivistic cultures. Individualism, stressing independence and personal achievement is thought to characterize the United States and other Western cultures (e.g., Western Europe; Australia). Collectivist cultures emphasize interdependence and group harmony – some would say at the expense of the individual (e.g., Japan; China). But Bandura recognized that the concept of agency can apply to groups or collectives of any kind as well as to individuals. He believes that agency and self-efficacy do not oppose collectivism at all, “In fact, a high sense of personal efficacy contributes just as importantly to group-directedness. If people are to work together successfully, the members of a group have to perform their roles with a high sense of self-efficacy” (1999, p. 185). But “perceived collective efficacy is not simply the sum of the efficacy beliefs of the individual members. Rather, it is an emergent group-level property . . . The stronger the beliefs people hold about their collective capabilities, the more they achieve” (1999, p. 185).

So the lessons of self-appraisals and self-regulation can be applied to groups as well as to individuals. Consider the example of political action groups. If members hold negative beliefs (“you can’t fight City Hall”) then their lack of effectiveness becomes almost a self-fulfilling process. But a self-efficacious group – perhaps one whose members petition citizens and hold community rallies – is more likely to succeed in affecting change.

Bandura on Personality Development

Individual Uniqueness and Identity (Self) Structures

Bandura opposes the trait approach to personality, especially the five factor model (Chapter 13), which he sees as lacking in both a firm theoretical basis and in explanatory power for predicting ordinary behavior. He also opposes psychological dualism – mind and body are not separate entities. Yet he does see personality in holistic terms; he is not reductionistic as are the Freudians, Skinnerians, and some neuroscientists. Following Roger Sperry (1993) he sees thinking and choice as “emergent brain brain activities that are not ontologically reducible” (1999, p. 156). According to Bandura personality is an integrated self-system in which “People express their individuality and give structure, meaning, and purpose to their lives by acting on their beliefs about themselves, their values, personal standards, aspirations, and construals of the world around them. These multiform belief systems, self structures, and self-referent processes through which one’s ‘personality’ is manifested in its totality function in concert not isolatedly” (1999, p. 187).

Each person has a unique identity or self-structure that preserves itself over time. Part of one’s personal identity is constructed from the way in which one is viewed by others, though this is not the whole story of the person: “In keeping with the model of triadic reciprocal causation, a sense of selfhood is the product of a complex interplay of social and personal construal processes” (p. 187). On the other hand, individual identity is constantly changing throughout the lifespan. As has been seen, the concepts of agency and self-regulation figure strongly in Bandura’s view of the person. Identity formation and change is thus a complicated matter that depends on both the reflected appraisals of others and self-regulatory processes. Thus other people’s perceptions count, but so do our own self-evaluations.

Triadic Reciprocal Causation and the Nature/Nurture Dichotomy

On nature versus nurture Bandura takes a moderate position. He sees sociobiologist E. O. Wilson (1998) viewing biology as “having culture on a ‘tight leash’” (Bandura, 1999, p. 189). In Bandura’s estimation psychological evolutionists tend to see behavioral propensities (think of aggression and war, for instance) as cultural universals. Although he agrees that biology can set constraints on behavior he agrees more with Stephen J. Gould (1987), that man is a highly adaptive species who is capable of a wide range of behavioral responses in different cultural environments. Once again his triadic reciprocal causation model allows for great flexibility, and Bandura reinforces the notion that the forces of nature and nurture are interdependent. Development of individual personalities must therefore be seen partly in terms of culture, but neither cultural context nor biological tendencies alone can account for the course of such development in a given person.

Observational Learning and Socialization Processes

Observational Learning of Gender Roles. In any culture socialization is a major part of psychosocial development. Earlier Bandura’s bobo doll experiment illustrated one aspect of socialization, namely, the learning of acceptable and unacceptable forms of aggression.

Learning of gender roles is another aspect of social development. Bandura does not dispute the notion that part of what is meant by masculinity and by femininity may be influenced by genetics, but he views the formation of gender roles as a process largely influenced by the learning of cultural norms. Thus, while men may in general be more aggressive than women, the particular forms of aggression and their acceptable expression for men and women are based on societal expectations.

Once again observation learning and modeling provide the basis for learning gender roles. Cultures specify behaviors that are acceptable and unacceptable for women and men, respectively; and what is true for one is often the reverse for the other. In many cultures food preparation is seen as the domain of the woman. This seems to be changing in our own culture, yet it is still much more

common to see a woman in the kitchen – but a man’s place seems to be at the barbeque pit. Men in our culture are not reinforced for being highly expressive, but especially with physical affection toward another male; yet such behavior is expected of women, but especially with other women and with children. In France or Russia, however, there are circumstances that permit and even demand men to be physically demonstrative toward other men.

Learning of gender roles is very much like other kinds of social cognitive learning in that rewards and punishments are provided, but these rewards and punishments are often vicarious or imagined, and self-regulation in line with social expectations also plays a part.

Observational Learning and Morality. Bandura sees moral development as a complex process. How a person behaves in a given situation is *not* a simple function of stage of development (per Kohlberg, Chapter 6). Behavior in practice does not always follow from learned *principles* of morality because real-life situations are complex (also see Turiel, 2006). This of course follows from Bandura’s basic model of triadic reciprocal causation, which interprets behavior as being the product of many individual factors (developmental stage being just one of these), as well as situational factors.

The complexity of moral judgments and moral behavior can be illustrated in many ways, but due to space limitations, only one is presented here³. Consider SCLT and ***prosocial behavior*** (sharing, helping, or altruistic behavior). In an experiment on sharing with others conducted by Midlarsky and Bryan (1967) young girls watched an adult playing a game in which a portion of winnings were put aside for poor children (charitable condition) or put exclusively in a jar labeled “my money” (selfish condition). However, the adult model in the latter condition urged the children to put aside money for the poor, even though she did not. The children then played a game which allowed them win tokens that could be traded for sweets and other rewards. Those in the charitable condition put aside more money for the poor children than did those in the selfish condition – which might also be

termed the “do as I say, not as I do” or even “hypocritical” condition.

However, the possibilities can be more complex. A number of other experiments also illustrate the primacy of the actions (as opposed to the words) of the model; but there is additional evidence that even hypocritical behavior, in which the children are admonished to act altruistically even when the model fails to do so, has some positive effect in the long term in influencing prosocial behavior (Eisenberg, Fabes, & Spinrad, 2006; Rushton, 1975). Still, the crucial lesson in general for parents and teachers is definitely that actions speak louder than words.

Bandura versus Piaget on Cognitive Development

Piaget views cognitive development much differently than did Bandura. Bandura’s positions can be contrasted with Piaget’s as follows:

- Bandura is not, in the sense that Piaget was, a stage theorist. Though he believes that children can only grasp certain tasks at certain ages, he also believes that this reflects mainly level of maturation, which is a gradual process, rather than on attainment of a complete restructuring of cognition. For Bandura, the ability to solve conservation tasks, for example, comes mostly with age and increased brain development. Consequently,
- Piaget’s notions of accommodation and assimilation are not recognized in Bandura’s SCLT. Rather, he sees learning of schemes (e.g., gender schemes) as resulting from the influence of models in observational learning and abstract learning.
- It should also be obvious that Bandura stresses social aspects of learning whereas social interactions and observations of the behavior of others were of far less importance for Piaget. Piaget, it may be recalled, saw the child as a little logician, who learned through interaction largely on his/her own with the environment. Bandura thought that children’s learning could be

logical and rational, but they could also be irrational, depending on the model's influence on their learning.

- Piaget believed that children were eager and natural learners who were intrinsically motivated. By contrast, Bandura thought children would not learn all they needed to know in order to be productive citizens on their own, although they might be motivated to learn in one or two areas of special interest to them. Moreover, he believed that so-called intrinsic motivation itself was not really intrinsic, but learned! By observing a model, for instance, a young person might become motivated to become a great scientist, artist, engineer, or athlete. Once the desire is present then the youngster's motivation is spurred by the self-regulation process, including her or his efficacy appraisals. Needless to say, the educational implications of these two opposing points of view are quite different!

Two Parts of the Same Elephant? It is hard to argue that Bandura is strictly right and Piaget is wrong, or vice versa. Recalling the fable of the blind men and the elephant, it seems more productive to see that each theorist has hold of a different piece of the elephant. It was seen earlier (Chapter 3) that Piaget's form of structuralism has its weaknesses: Children are not as egocentric as Piaget thought, they can learn certain concepts at an earlier age than he believed they could, and the phenomenon of horizontal décalage implies that cognitive growth can be spread out within each stage or period (as Piaget himself came to recognize). Also, the stages and periods may not be as invariant and universal as Piaget thought they were. Recall that Vygotsky (Chapter 4) first clearly demonstrated the importance of social factors in cognitive development. (Perhaps Vygotsky can be seen as a bridge between Piaget and CSLT.)

On the other hand many of Piaget's observations, especially in very young children, argue for the crucial importance of children's learning of very basic cognitive skills largely through their own experimentation. Much motor and language learning is of this type, as are some more purely cognitive skills, which might be called *natural learning*, in contrast to social learning. But it is also true

as Bandura implies that children are not naturally motivated to take on most school learning (the three “R’s”) but must acquire such a motivation through modeling and through the experience of self-efficacy. In other words, left on their own, children simply would not acquire the kind of education needed to succeed in today’s world.

On his part Bandura believes that “. . . in the field cognitive development, the bulwark of global structuralism [per Piaget] is being abandoned for more specialized cognitive competencies” (1999, p. 160). In terms of school learning Bandura (1986) argues that the skills needed to solve math problems are much more specific than those required for reading or writing; thus, he doesn’t see how Piaget’s global stages can really address these specific abilities. Yet once again it seems that the elephant of cognition can be seen from different angles – and the ways in which development progresses depend in part on the kinds of tasks the researcher examines. The many skills that come with Piaget’s formal operations, for instance, all require the ability to abstract and hypothesize – skills that are simply not available until a certain stage of cognitive readiness is reached. But yes, learning long division certainly requires an entirely different skill set than, say, written expression via essay writing. It is hard to see what these abilities, both of which are taught to children at Piaget’s concrete operational stage, have in common.

It seems that some kinds of learning can be understood best through Piagetian adaptation (accommodation and assimilation), other types through observation and modeling. And in some cases both kinds of processes may contribute. Bandura claims that using models can work in teaching Piagetian conservation skills. Two researchers, Rosenthal and Zimmerman (1972; 1978; Zimmerman & Rosenthal, 1974), found that children of five and six years can learn to solve a number of conservation problems by observing adult models, but the results were tentative with four-year olds. Piagetian theory suggests that the younger children were not cognitively ready to handle the tasks. The older children can learn by observing a model, and Zimmerman and Rosenthal’s results do indeed suggest that Piagetians missed this point. It may in fact be that some children do learn by solitary experimentation, others by

observation – but certainly readiness is an important factor in either case.

Evaluating Bandura

Traditional learning theory (TLT) and behaviorism reigned when Bandura began his career in psychology. Bandura was very interested in the psychology of learning but he believed almost from the start of his career that behaviorism overlooked the influence of social factors.

Clark Hull at Yale University, a strong advocate of TLT, became interested in reconciling learning theory with Freud's psychoanalysis. He began a seminar of his graduate students who undertook this task. Among those attending were students who later distinguished themselves in academic psychology, including John Dollard, Neil Miller, Robert Sears, and O. Hobart Mowrer. Dollard and Miller (1950), for instance, believed that neurotic behavior could be learned – hence it could also be unlearned. They thought that much of learned behavior, including neurotic behavior, was acquired through observation. As an example of an acquired fear or phobia, think of how easy it might be for a child who observes a parent who always reacts to spiders or other large insects with fear and loathing to adopt the same responses.

In a similar way, Dollard and Miller (Miller & Dollard, 1941) began to see that children's gender role identification with the same sex parent came about from observation coupled with rewards and punishments for appropriate or inappropriate role behavior, respectively. For example, a boy is reinforced for masculine behaviors when he imitates his father and is called "a chip off the old block."

Bandura, studying with Kenneth Spence at the University of Iowa – Spence was a close colleague of Hull – perceived the import of this work. But it took Bandura and Walters (1963) in their studies of aggression to show that observational learning really didn't follow the TLT model; as was seen earlier, this learning did not require multiple trials and actual reinforcement.

While Bandura doesn't stand alone among social-cognitive

pioneers, his research – more than that of anyone else – has helped to define this perspective, and he remains its most eloquent and articulate spokesperson. Although SCLT has its roots in traditional learning theory, Bandura recognized the limiting nature of behaviorists like Watson and Skinner who wished to limited psychology to only the study of observable behavior. Bandura’s views of psychology are broader and more accommodating – and are less strident and insistent than theirs. And in an age in which grand theories of psychology are out of vogue, Bandura’s social-cognitive perspective can be seen as truly comprehensive in light of his reciprocal triadic causation, embracing as it were the nature of human beings and how they think, perceive, and learn, as well as how they grow and develop. And along with the humanists (Chapter 15) he helped put the person back into the study of personality, including his important ideas about the self (though his concept of self-efficacy differs with the Rogers and his emphasis on global self-esteem). His rational and soft-spoken style of presenting his work and ideas contrasts with, say, John B. Watson; he is not in any grandiose sense a self-promoter. Yet those who are familiar with his work do not doubt its importance and its impact on our field.

For Thought and Discussion

1. In Bandura's bobo doll experiments, why did children in the "no consequences" condition act aggressively following the exposure to the model?
2. Can you relate a time you clearly observed a child learn a new behavior from simply observing another child or adult? Was the behavior in question socially acceptable, or otherwise?
3. To what extent do you think children's observing television violence can contribute to their violent or delinquent behavior? Can you cite any examples from your own experience? What are parents' responsibilities in monitoring children's television viewing?
4. Try to think of a time when a negative efficacy appraisal (belief that you could not accomplish something) held you back from achieving a goal.
5. Can you recall, from your childhood, being discouraged or punished for gender-role inappropriate behavior?
6. Although not himself a stage theorist, Bandura would still agree with Piaget and Kohlberg, that children learn unselfish behavior very early in life. How would he explain this phenomenon?

Notes

1. Bandura (1999, p. 154).
2. I did not originate this term. I've seen it used by economists and biologists, as well as other psychologists, with similar intent.
3. See Turiel (2006).