extended and redefined to reflect the changing theoretical emphasis noted above. New findings are presented for psychological processes that have been neglected or only partially investigated in the traditional approaches. Because of the mass and rapid growth of research on social learning, a detailed review of the relevant literature would exceed the scope of this book. A fuller treatment of the conceptual and empirical issues in social learning will be provided in a later volume.

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Albert Bandura
MANY THEORIES HAVE BEEN PROPOSED OVER THE YEARS to explain human behavior. Until recently, some theorists held that motivational forces in the form of needs, drives, and impulses, frequently operating below the level of consciousness, were the major determinants. Since the proponents of this school of thought consider the principal causes of behavior to be forces within the individual, that is where they look for the explanations of why people behave as they do. Although this view enjoyed widespread popularity and influence, it did not go unchallenged.

Theories of this sort were criticized on both conceptual and empirical grounds. The inner determinants often were inferred from the behavior they supposedly caused, resulting in description in the guise of explanation. A hostile impulse, for example, was derived from a person's irascible behavior, which was then attributed to the action of an underlying hostile impulse. Similarly, the existence of achievement motives were deduced from achievement behavior; dependency motives from dependent behavior; curiosity motives from inquisitive behavior; power motives from domineering behavior, and so on. There is no limit to the number of motives one can find by inferring them from the kinds of behavior they supposedly produce. Indeed, different theories have proposed diverse lists of motivators, some containing a few all-purpose drives, others embracing a varied assortment of specific drives.

The conceptual structure of theories that invoke impulses as the principal motivators of behavior has been further criticized for disregarding the enormous complexity of human responsiveness. An internal motivator cannot possibly account for the marked variation in the frequency and strength of a given behavior in different situations, toward different persons, and at different times. When diverse environmental conditions produce corresponding variations in behavior, the postulated inner cause cannot be less complex than its effects.

It should be noted in passing that it is not the existence of motivated behavior that is being questioned, but whether such behavior is at all explained by ascribing it to the action of impulses. The limitations of this type of analysis can be illustrated by considering a common activity, such as reading, which has the qualities of a highly motivated behavior. People spend large sums of money purchasing reading material; they expend effort obtaining books from libraries; they engage in reading for hours on end; and they can become emotionally upset when deprived of reading material (as when their daily newspaper is not delivered through an oversight).

Following the common practice of inferring the existence of drives from persistent behavior, one could ascribe the activated reading to the force of a "reading drive"—or, more likely, to some higher motive. However, if one wanted to predict what people read, when, how long, and the order in which they choose to read different material, one would look not for drives but for preceding inducements and expected benefits derived from reading and for cognitive factors that influence reading activities. On the antecedent side, one would want to know, among other things, people's reading assignments, their deadlines, and the type of information they require to deal effectively with the demands of everyday life. Knowledge about the reading material people find rewarding or boring as well as the effects of reading or ignoring certain materials are also important consequential determinants. Reading activities are further regulated cognitively by people's anticipations, intentions, and self-evaluations. There is a crucial difference between ascribing motivating potentials to antecedent, incentive, and cognitive inducements, which are verifiable by experimentation, and positing acquired
drives, which have been found lacking in explanatory value (Bolles, 1975).

While the conceptual adequacy of the impulse energy theories could be debated at length, their empirical limitations could not be ignored indefinitely. They provide ready interpretations of past events, but they are deficient in predicting future ones (Mischel, 1968; Peterson, 1968). Most any theory can explain things after the fact. The explanatory power of a psychological theory is gauged by its accuracy in specifying the conditions governing psychological phenomena and the mechanisms by which the determinants produce their effects. The approaches under discussion have not fared well when tested for their explanatory capabilities either.

The value of a theory is ultimately judged by the power of the procedures it generates to effect psychological changes. Other sciences are evaluated by their eventual contributions to prediction and technical innovations using that knowledge. Suppose, for example, aeronautical scientists developed certain principles of aerodynamics in wind tunnel tests; if in applying these principles they were never able to design an aircraft that could fly, the value of their theoretical assumptions would be highly questionable. The same judgment would be applied to theorizing in the medical field if certain theories about physiological processes never led to any effective treatments of physical maladies. Psychological approaches which attribute behavior to the operation of internal impulses consider the achievement of insight or self-awareness essential for producing enduring behavioral changes. Through the process of labeling people’s impulses, which manifest themselves in many guises, the underlying determinants of their behavior are gradually made conscious. After these impulses are brought into awareness, they presumably cease to function as instigators, or they become more susceptible to conscious control.

However, studies measuring actual changes in behavior have had difficulty demonstrating that the behavior of persons who received psychodynamically-oriented treatment changed any more than that of comparable individuals who had not undergone such procedures (Bandura, 1969; Rachman, 1971). Gaining insight into one’s underlying motives, it seems, is more like a belief conversion than a self-discovery process. As Marmor (1962), among others, has noted, each psychodynamic approach has its own favorite set of inner causes and its own preferred brand of insight. The hypothesized determinants can be readily confirmed in self-validating interviews by offering suggestive interpretations and selectively reinforcing clients’ observations whenever they are consistent with the therapists’ beliefs. Thus, advocates of differing theoretical orientations repeatedly discover their chosen motivators at work but rarely find evidence for the motivators emphasized by the proponents of competing views. In fact, if one wanted to predict the types of insights and unconscious motivators that persons are apt to discover in themselves in the course of such analyses, it would be more helpful to know the therapists’ conceptual belief system than the clients’ actual psychological status.

Questions about belief conversions in the name of self-awareness would apply equally to behavioral approaches if they mainly taught people to construe their actions in behavioral terms but failed to alter the behavior for which clients sought aid. For this reason, psychological methods are best evaluated on the basis of their effectiveness in changing actual psychological functioning.

It eventually became apparent that in order to make progress in understanding human behavior, more stringent requirements would have to be used in evaluating the adequacy of explanatory systems. Theories must demonstrate predictive power. They must accurately identify the determinants of human behavior as well as the intervening mechanisms responsible for the changes.

Developments in behavior theory shifted the focus of causal analysis from amorphous internal determinants to detailed examination of external influences on human responsiveness. Behavior has been extensively analyzed in terms of the stimulus conditions that evoke it and the reinforcing conditions that maintain it. Researchers have repeatedly demonstrated that response patterns that are generally attributed to inner causes can be induced, eliminated, and reinstated by varying external influences. Results of such investigations have led many psychologists to view the determinants
of behavior as residing not within the organism but in environmental forces.

The notion that human behavior is externally regulated, though amply documented, has not been enthusiastically received. To many people it implies a one-way control process which reduces individuals to passive respondents to the vagaries of whatever influences impinge upon them. Popular accounts of the potentials of psychological control conjure up frightening images of societies in which inhabitants are manipulated at will by occult technocrats.

There is another implication of radical behaviorism that raises objections in the minds of many. If the environment controls behavior, it was reasoned, then behavior must vary with changing circumstances. Behaviorists would not entirely agree with this view because whether people behave uniformly or variably depends upon the functional equivalence of the environments. Thus, if acting intelligently in diverse settings has functional value, people will be consistently intelligent in situations that otherwise differ markedly. By contrast, if issuing orders to police officers brings punishment while ordering store clerks brings better service, then people will behave authoritatively with clerks but cautiously with the police. Behavior theory is therefore concerned with the conditions determining both generality and specificity in conduct, rather than championing only variability in behavior. Nevertheless, the notion that behavior may be situationally specific contradicts firmly held beliefs that people possess traits or dispositions which lead them to behave consistently under changing circumstances. The old controversy over situational and dispositional determinants of behavior, which had remained dormant for years, has once again become the subject of attention.

Studies in which such behavior as, for example, aggression or dependency, were measured in different settings revealed limited consistency in conduct from one situation to another (Mischel, 1968). In commenting on the issues, Mischel discusses factors that may possibly lead people to see behavioral consistencies where they do not exist. The factors listed as creating the impression of consistency include physical constancies in appearance, speech, and expressive behavior; regularity of the settings in which a person is repeatedly observed; reliance upon broad and ambiguous trait categories encompassing heterogeneous behavior; internal pressures for consistency to maintain a stable view of people; and researcher’s use of personality tests that require people to rate their behavior in “typical” rather than in specific situations. Changeable responsiveness therefore tends to be glossed over, ignored, or reinterpreted.

Efforts to strip traits and motives of their sovereignty have not gone uncontested. Proponents of these theories argue that seemingly different behaviors may be manifestations of the same underlying motive. This type of argument has not been especially persuasive because no reliable criteria have been provided for identifying the behaviors that are expressions of a particular motive and those that are not. Some researchers questioned the assumptions of the traditional methods used to study behavioral consistencies. Bem and Allen (1974) advanced the view that some people are highly consistent in some areas of behavior, but the evidence of cross-situational consistency is obscured when data from consistent and variable responders are combined in behavior dimensions defined in terms of the researcher’s frame of reference. In tests of this proposition, Bem and Allen have shown that individuals who describe themselves as consistent on certain behavior dimensions given trait names (e.g., friendliness, conscientiousness) are rated with higher agreement by others in these areas of behavior than are individuals who identify themselves as being highly variable in behavior. However, the implications of this evidence for the issue of behavioral consistency is difficult to assess because most of the findings are reported in terms of inter-rater correlations of summary scores that pool ratings of behavior across situations. In addition to a behavioral measure, subjects were rated by their parents, by a peer, and by themselves for friendliness and conscientiousness on a questionnaire describing many different situations. But the ratings for each trait dimension were summed for each judge across situations into a global score. In testing for consistency one must measure how individuals vary in their behavior under different circumstances rather than how they stand in relation to others,
The most informative methodology for studying cross-situational consistencies is to record how much people vary in their behavior across situations that differ measurably in the probable consequences for the behavior being examined. Situations chosen for study should be scaled in terms of consequences they customarily provide for the particular behavior rather than selected arbitrarily. Such studies would undoubtedly reveal that all people behave discriminatively most of the time. It is only by including a range of values of the environment that people's responsiveness to situational circumstances can be adequately evaluated. The number of individuals who might be categorized as unchanging responders would fluctuate depending upon the behavior selected for study, the extent to which the situations sampled differ in likely consequences for the given conduct, how much variability is tolerated in the criterion of consistency, and whether one measures verbal reports of behavior or the behavior itself.

Acting friendly, just as acting intelligently, is functional in diverse situations and therefore appear more consistently than behaviors that produce different effects under dissimilar circumstances. It would be difficult to find adolescents, for instance, who are consistently aggressive toward parents, teachers, peers, and police officers, because the consequences for the same conduct vary markedly (Bandura and Walters, 1959). Even in the case of a widely acceptable behavior such as friendliness, the ranks of the consistent responders can be substantially reduced simply by including some situations in which friendliness is less probable, as when individuals are being exploited, or discriminated against. Only those who are grossly undiscerning or who have a poor sense of reality would remain steadfastly amiable.

It is unfortunate that the label “consistency” has been applied to the issue of behavioral variability because the term has misleading connotations. Consistency not only implies virtues of steadfast, principled conduct, but sets up the contrast as “inconsistency” with its implications of instability and expediency. In many instances the opposite is the case. People would have to be highly inattentive to the world around them, obtuse, or indifferent to the personal and social effects of their conduct to act the same irrespective of circumstances. Nevertheless, the inversion of value implications of the term consistency serves to divert attention from the study of the reciprocal interaction between environmental and behavioral determinants to the search for invariant conduct.

Most of the participants in the controversy over the determinants of behavioral variation eventually adopted the view that behavior results from the interaction of persons and situations, rather than from either factor alone (Bowers, 1973, Endler & Magnusson, 1975). The consensus has reduced the level of dispute, but the basic question of how these two sources of influence interact in determining behavior remains to be clarified.

Interaction can be conceptualized in different ways reflecting alternative views of how causal processes operate. In the unidirectional notion of interaction, persons and situations are treated as independent entities that combine to produce behavior. This approach is usually represented as $B = f(P,E)$, where $B$ signifies behavior, $P$ the person, and $E$ the environment. As will be shown later, the validity of this commonly held view is questionable on several grounds. Personal and environmental factors do not function as independent determinants, rather they determine each other. Nor can “persons” be considered causes independent of their behavior. It is largely through their actions that people produce the environmental conditions that affect their behavior in a reciprocal fashion. The experiences generated by behavior also partly determine what a person becomes and can do which, in turn, affects subsequent behavior.

A second conception of interaction acknowledges that personal and environmental influences are bidirectional, but retains a unidirectional view of behavior. In this analysis, persons and situations are depicted as interdependent causes of behavior as though it were only a product that does not figure at all in the causal process $B = f(P,E)$. As we have already seen, behavior is an interacting determinant, not simply an outcome of a “person-situation interaction.”

In the social learning view of interaction, analyzed fully later as a process of reciprocal determinism, behavior, other
personal factors, and environmental factors all operate as interlocking determinants of each other \[ b \leftrightarrow P \leftrightarrow E \]. The relative influences exerted by these interdependent factors differ in various settings and for different behaviors. There are times when environmental factors exercise powerful constraints on behavior, and other times when personal factors are the overriding regulators of the course of environmental events.

A valid criticism of extreme behaviorism is that, in a vigorous effort to avoid spurious inner causes, it has neglected determinants of behavior arising from cognitive functioning. Proponents of this approach marshalled numerous reasons why cognitive events are inadmissible in causal analyses. It was, and still is, argued that cognitions are inaccessible except through untrustworthy self-reports, that they are inferences from effects, that they are epiphenomenal, or that they are simply fictional.

Because some of the inner causes invoked by theorists over the years have been ill-founded does not justify excluding all internal determinants from scientific inquiry. A large body of research now exists in which cognitions are activated instructionally, their presence is assessed indirectly, and their functional relationship to behavior is carefully examined. Results of such studies reveal that people learn and retain behavior much better by using cognitive aids that they generate than by reinforced repetitive performance. With growing evidence that cognition has causal influence on behavior, the arguments against the influence of internal determinants began to lose their force.

A theory that denies that thoughts can regulate actions does not lend itself readily to the explanation of complex human behavior. Although cognitive activities are disavowed in the operant conditioning framework, their role in causal sequences simply cannot be eliminated. Therefore, adherents of operant theory translate cognitive operations into behavioristic terms, and ascribe their effects to the direct action of external events. Let us consider a few examples of this externalization process. When informative cues affect behavior through the intervening influence of thought, the process is portrayed as one of stimulus control; that is, stimuli are seen as prompting behavior directly, without reference to the judgmental link. When people act protectively in the presence of stimuli previously associated with painful experiences, the stimuli are presumed to have become aversive rather than that the individuals have learned to anticipate aversive consequences. In fact, it is people's knowledge of their environment, not the stimuli, that are changed by correlated experience. Thus, for example, if a given word foreshadows physically painful stimulation the word assumes predictive significance for the individual not the painful properties of the physical stimuli.

The issue of the locus at which behavioral determinants actually operate applies to reinforcement influences as well as to environmental stimuli. It has always been the cardinal rule of operant theory that behavior is controlled by its immediate consequences. If momentary response effects determined performance, organisms should rapidly cease responding when only occasionally reinforced whereas, in fact, their behavior is most persistent under such conditions. Thus, if only every 50th response is reinforced, 98 percent of the outcomes are extinctive and only 2 percent are reinforcing. Because behavior continues to be performed despite predominantly dissuading effects, one must look beyond immediate environmental consequences for the determinants.

Some operant researchers have recently developed the proposition that behavior is regulated by integrated feedback rather than through its immediate effects (Baum, 1973). According to this view, organisms integrate data on how often their responses are reinforced over a substantial period of time and regulate their behavior according to the aggregate consequences. This type of analysis comes close to linking the effect of consequences on action through the integrating influence of thought. People have to remember the circumstances and how often their behavior is reinforced and to extract the pattern of outcomes from sequences of events over time. Cognitive skills represent the integrating capability.

In the social learning view, people are neither driven by inner forces nor buffeted by environmental stimuli. Rather, psychological functioning is explained in terms of a continuous reciprocal interaction of personal and environmental de-
terminants. Within this approach, symbolic, vicarious, and self-regulatory processes assume a prominent role.

Psychological theories have traditionally assumed that learning can occur only by performing responses and experiencing their effects. In actuality, virtually all learning phenomena resulting from direct experience occur on a vicarious basis by observing other people's behavior and its consequences for them. The capacity to learn by observation enables people to acquire large, integrated patterns of behavior without having to form them gradually by tedious trial and error.

The abbreviation of the acquisition process through observational learning is vital for both development and survival. Because mistakes can produce costly, or even fatal consequences, the prospects for survival would be slim indeed if one could learn only by suffering the consequences of trial and error. For this reason, one does not teach children to swim, adolescents to drive automobiles, and novice medical students to perform surgery by having them discover the appropriate behavior through the consequences of their successes and failures. The more costly and hazardous the possible mistakes, the heavier is the reliance on observational learning from competent examples. Apart from the question of survival, it is difficult to imagine a social transmission process in which the language, lifestyles, and institutional practices of a culture are taught to each new member by selective reinforcement of fortuitous behaviors, without the benefit of models who exemplify the cultural patterns.

Some complex behaviors can be produced only through the aid of modeling. If children had no opportunity to hear the utterances of models, it would be virtually impossible to teach them the linguistic skills that constitute a language. It is doubtful that one could ever shape intricate words, let alone create grammatical speech, by selective reinforcement of random vocalization. In other behaviors that are formed by unique combinations of elements selected from numerous possibilities, the chances of producing spontaneously the response patterns, or something resembling them, is quite remote. Where novel forms of behavior can be conveyed effectively only by social cues, modeling is an indispensable aspect of learning. Even when it is possible to establish new behaviors through other means, the process of acquisition can be considerably shortened through modeling.

The capacity to use symbols provides humans with a powerful means of dealing with their environment. Through verbal and imagined symbols people process and preserve experiences in representational forms that serve as guides for future behavior. The capability for intentional action is rooted in symbolic activity. Images of desirable futures foster courses of action designed to lead toward more distant goals. Through the medium of symbols people can solve problems without having to enact all the various alternative solutions; and they can foresee the probable consequences of different actions and alter their behavior accordingly. Without symbolizing powers, humans would be incapable of reflective thought. A theory of human behavior therefore cannot afford to neglect symbolic activities.

Another distinguishing feature of social learning theory is the prominent role it assigns to self-regulatory capacities. By arranging environmental inducements, generating cognitive supports, and producing consequences for their own actions, people are able to exercise some measure of control over their own behavior. To be sure, the self-regulatory functions are created and occasionally supported by external influences. Having external origins, however, does not refute the fact that, once established, self-influence partly determines which actions one performs.

A comprehensive theory of behavior must explain how patterns of behavior are acquired and how their expression is continuously regulated by the interplay of self-generated and external sources of influence. From a social learning perspective, human nature is characterized as a vast potentiality that can be fashioned by direct and vicarious experience into a variety of forms within biological limits. The level of psychological and physiological development, of course, restricts what can be acquired at any given time. These issues are discussed at length in the following chapters.