HANDBOOK OF MORAL BEHAVIOR AND DEVELOPMENT

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4 Proximal Mechanisms Underlying the Acquisition of Moral Behavior Patterns

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ABSTRACT

The behavior-analytic viewpoint of the processes underlying the development of moral behavior patterns emphasizes that those behavior patterns are determined by the environmental contingencies effected by the consequences resulting from those behaviors. This chapter focuses on the processes of acquisition of overt moral actions, without appealing to value principles, developmental-stage notions, or dimensions of sociomoral knowledge. Mechanisms that underlie moral action are outlined for pre- and post-language acquisition individuals, and take into account behaviors that are public or private, physical or verbal, and that may denote altruism, empathy, self-sacrifice, sharing, caring, conscience, justice, loyalty, or virtue. In a developmental context, it is shown how the operant-learning paradigm—with its emphasis on action and extrinsic stimuli—can account for both moral behavior and moral rules as joint outcomes of conditioning processes. Also explained are how the mechanisms underlying direct *contingency shaped* behaviors and *rule-governed* behaviors operate to determine the child's moral acts in diverse contexts, even acts that, by leading unambiguously to apparent unpleasant or aversive consequences, could seem paradoxical. Moral behavior is seen as under the control of nonverbalizable direct contingencies in prelinguistic children, and later, with advances in the child's language skills, much of that behavior is seen as coming under the control of verbalizable explicit rules (including both those that are self-formulated and those provided by others). Because the *social conditioning* approach to moral development outlined here deals with action outcomes as well as with antecedent and concurrent verbalizations of action (including verbal reasoning and moral judgment that have been

the focus of cognitive-developmental theories), it can provide some leads on how to deal with overt actions in the moral realm. This approach details the features of the operant-learning paradigm to explain the very same phenomena in the moral realm that nonbehavioral cognitive and other theories have targeted, at the same time that it attempts to fill in the details that Kohlberg's and Piaget's cognitive-developmental postulates require.

INTRODUCTION

People often find themselves in positions in which they must choose *between* convenient consequences, significant rewards, or even saving their own lives *and* the alternatives of inconvenient or noxious consequences such as foregoing these rewards, or even being subjected to torture or death. Some individuals often select the latter unpleasant alternatives which, at first glance, seem irrational or at least puzzling. Insofar as the choices lead to detrimental consequences when behavior that avoids these consequences or lead to beneficial consequences readily could have been emitted, society often admires them for these acts. It has even been argued that the cohesiveness of society may depend on such acts in which the customary relations between behavior and its overt consequences are violated. One or more of the overlapping terms of morality, conscience, resistance to temptation, guilt, altruism, empathy, loyalty, and virtue are often applied to such puzzling relations between behavior and its consequences (Goldiamond, 1968).

Although it may be assumed that all human beings are born with the potential for developing moral behavior patterns of one kind or another, the behavior-analytic approach of this chapter emphasizes that moral behavior is a result ultimately of socio-environmental contingencies effected by the consequences resulting from the behavior. Because the behavior is learned, it can be modified/managed, even reversed or eliminated. Our present analysis focuses on the process of acquisition of overt moral actions (including verbal reasoning and judgments) in terms of any standard, without taking a particular value perspective (e.g., to distinguish "good" from "evil"), or appealing to absolute value principles, developmental-stage notions, or dimensions of sociomoral knowledge.

Taking a behavior-analytic viewpoint of the processes involved, proposals are offered in this chapter about some processes involved in the acquisition and performance of moral behavior patterns, including those that may be paradoxical, public or private, physical or verbal (including reasoning and judgment), and that may denote altruism, empathy, self-sacrifice, sharing, caring, conscience, justice, loyalty, and/or virtue. In a developmental context, this functional analysis describes how the operant-learning paradigm can account for both moral behavior and moral rules as outcomes of a conditioning process. It also

explicates how those acquired rules can then operate to determine moral action in diverse contexts (even acts that, by leading unambiguously to apparent unpleasant or aversive consequences, could seem paradoxical). Specifically, the proposal is made that operant-discriminative and -derivative imitative processes (i.e., match-to-sample, pervasive imitation) provide the basis for much of the child's moral development. We emphasize that in prelinguistic children what could be term "moral behavior" is under the control of nonverbalizable direct contingencies and later, with advances in the child's language skills, the behavior comes under the control of verbalizable explicit rules (including both those that are self formulated and those that are provided by others).

In the past 60 years, developmental research on young children's moral behavior has had a two-fold focus: on *behavioral* outcomes like those denoting lying or cheating as well as those denoting prosocial and altruistic behavior and their determinants and antecedents (e.g., Eisenberg, Vol. 2, this Handbook; Ekman, 1989; Hartshorne & May, 1928); and on *reasoning* that has relied almost exclusively on verbal judgments and explanations about the right action to take in different hypothetical moral dilemmas (Kohlberg, 1969, 1984; Piaget, 1932). That the cognitive-developmental approaches to moral development—which in recent years have given the conceptual area much of its tone—have emphasized not moral acts but expressed judgments and reasoning about moral dilemmas, has complicated the examination of the process of moral reasoning in prelanguage children and also has limited an understanding of the early mechanisms operating in the acquisition of patterns of moral action.

In contrast, this chapter outlines a conceptual approach to moral development that emphasizes behavior-action outcomes in addition to those based on verbal reasoning and judgment. Because the social-conditioning approach of this chapter deals with action outcomes as well as antecedent and concurrent verbalizations of action, it provides some leads on how to deal with overt actions in the moral realm. In this endeavor, account is taken of two of Kohlberg's (1966) assumptions: that imitation/identification provides the basis for early rule learning and thus for later moral judgment and behavior; and that "internal schemes" or "cognitive structures" regulate action. On the latter matter, the case is made herein that such theoretical cognitive-developmental conceptions as "structures"/"schemes" are similar to our conception of nonverbalized rules (also termed implicit rules). Using a different heuristic, the social-conditioning approach outlined herein fills in the details that Kohlberg's and Piaget's cognitive-developmental postulates require, at the very same time that it details the features of the operant-learning paradigm to explain the very same phenomena that nonbehavioral cognitive and other theoretical approaches have targeted.

In recent decades, most investigators in the field of moral development have subscribed to nonbehavioral cognitive positions, devoting little interest to the study of overt, particularly nonverbal, moral behavior. Instead, theoretical and research emphasis has been placed on the analysis of moral reasoning and judg-

ment via the study of the child's verbal explanations. Moreover, the mechanisms and fundamental extrinsic operations responsible for the acquisition of the moral acts, such as reinforcement/punishment/extinction, and derivative imitative processes (e.g., match-to-sample, pervasive imitation), as well as the distinction between contingency-shaped and rule-governed behavior, have been for the most part overlooked. And when those learning processes have been invoked, they are often confounded with Bandura's (1977) conceptualizations of "observational" and "vicarious" learning (as used also by Mischel, 1973), or appear to be relegated to operating at "stage three" of Kohlberg's stage theory of moral development (Kohlberg, 1969, 1976).

In contrast, our present examination of the acquisition of moral behavior patterns places emphasis on the analysis of functional relations between environmental contingencies on the individual's behavior. Our focus is on extrinsic stimuli that, when provided contingently on particular response classes, shape, increase or decrease their rate (or any other attribute, like latency, amplitude, or duration) (those stimuli being termed reinforcers or punishers), showing how variations in environmental conditions comprising the social context can affect and control the child's sociomoral behavior in context. Emphasis is also placed on the acquisition of rules that become functional for the child's moral behavior. But first, some similarities and differences between two major approaches to moral development are highlighted in the section that follows.

COGNITIVE-DEVELOPMENTAL AND SOCIAL-CONDITIONING APPROACHES TO MORAL BEHAVIOR CONTRASTED

A Misconception about Mechanistic and Organismic World View Differences

The theoretical assumptions about the basic characteristics of moral development and the interpretations of observations depend on the theoretical approach employed and its underlying world view. Despite his adherence to constructivist Piagetian theory, Kohlberg's cognitive-developmental approach to moral development cannot be classified as organismic in the conventional sense, but seems to represent a combination of aspects of the mechanistic and organismic models. Pepper (1942) has proposed that there are four world-view hypotheses, namely mechanism, formism, contextualism, and organicism, that every philosophic system is built upon a root metaphor drawn from the world of common sense (i.e., the machine, the living organism, or the historic event), and that the world hypothesis favored by a theory attempts to explain *all* facts. Behavior analysis has often been characterized as mechanistic (Overton & Reese, 1973, also see Gewirtz & Boyd, 1976; Lerner, 1976; Reese & Overton, 1970) despite the fact

that, as applied to child development in particular, behavior analysis recognizes itself to be *contextualistic* in world view (Hayes, 1988; Morris, 1988). Generally speaking, developmental psychologists have championed organicism over mechanism. Unfortunately, nonbehavioral developmentalists (e.g., Dixon & Lerner, 1988, p. 27; Sameroff, 1983, p. 247) have insisted on conceptualizing and misclassifying behavior analysis and S-R learning theory as being mechanistic, that is as ". . . adhering to a world view inherently incapable of representing human development in adequate fashion" (Morris, 1988, p. 291). It has been said that behavior analysts see the child as molded by the environment without assuming any particular direction to development (e.g., Mussen, Conger, & Kagan, 1974, p. 65) and that developmental behavior analysts see the child as a passive organism that does not contribute to his or her own development (e.g., Lerner, 1976, p. 279). Modern learning developmentalists strongly reject this misclassification in contemporary psychology (Bijou, 1979; Morris, 1988).

Behavior theory considers both the organism and the environment to be *active*, and conceives the two to be an inseparable, interdependent unit (Bijou, 1979). The focus of social-conditioning theory is on sequential and reciprocal (efficient/material) causality involving units of the individual's behavior in interaction with units of its environment in which mostly-social contingencies produce and maintain behavior. The child's responses are seen as in continuous dynamic interaction with stimuli that constitute his/her functional environment. As stated by Hull (1943) ". . . both environment and organism are active; the environment acts on the organism and the organism acts on the environment" (p. 16). Specifically, stimuli act on the child's responses while the child's responses act on and modify environmental units (i.e., "behavior") (Bijou, 1979). The behavior-analytic approach can be classified perfectly well under *contextualism* in world view, in which the underlying root metaphor is the historical event: "Each interaction is the unique product of past activity in current context, as well as being the historical context for the next interaction (Morris, 1988, p. 292)." For our present analysis, contrasting the cognitive-developmental and social-conditioning approaches in terms of world-view differences is difficult since both approaches agree on several assumptions, in particular that moral behavior is the product of interaction between the individual and the environment, and that behavior is determined by both environmental and organismic factors. In this context, world-view metaphors are disregarded and emphasis is placed entirely on how the two approaches deal with the acquisition/development of the child's moral behavior.

Similarities and Differences Between the Two Approaches

As noted, the constructivist *cognitive-developmental* and the objectivist *learning-developmental* social-conditioning theoretical approaches to moral development appear disparate. Nevertheless, both perspectives seem to have a number of

similar implications for studying the direction of effects in interaction. In this section, we identify some similarities between these two approaches that imply similarities in data organization and predicted outcomes as well as point out some differences.

Some Similarities. First, for behavior-analytic theory "causes" are to be found in the functional relations among antecedent or concurrent environmental events that raise or lower the incidence (or another attribute) of a behavior unit (Skinner, 1953). At the same time, such factors might connote to cognitive-structural theorists facilitative or inhibitory effects on the formal course of the child's moral development. Second, the appearance that cognitive theories emphasize "structures" and that behavior theories do not is a trivial distinction between the two perspectives: *All* theories function as if there are residues of selective experience ("internal structures/schema" in cognitive-developmental theory, discriminative stimuli, and discrimination/learning in social-conditioning behavior theory) that control, account for, or impact upon subsequent action, though behavior theories do not require the formal positing of "structures/schema for its behavioral descriptions." Kohlberg (1969, pp. 404–405) showed a misunderstanding of this feature and, at the same time was unconstructive, in his criticism of behavior theories as deficient simply because they do not formally posit "structures" and, on that sole basis, must not have a required mechanism for organizing across time the implications of the organism's experience for its subsequent interaction with the environment.

Some Differences. The cognitive-developmental and social-conditioning approaches diverge in several ways. First, they differ in how they approach and explain the mechanisms underlying action, how the child's moral reasoning relates to action, how moral behavior comes under the control of environmental events and ultimately of rules, and whether or not a universal, invariant progression of "stages" orders hierarchically moral development. For learning-developmental approaches like that of social-conditioning being highlighted herein, whether or not moral behavior could be ordered in terms of an invariant progression of behavior patterns (" stages") is an interesting but passing matter; and, if such an order would be found, explanation very likely would be attempted in terms of common learning histories and not invariant universal stages. According to Kohlberg's (e.g., 1969) constructivist view, the organism's "cognitive structures" refer to rules for processing information or connecting experienced events. Social conditioning assumes that the "connections structures" to which Kohlberg has referred result from interrelations among stimulus and response functions, and that they may be formed in the child when its behavior becomes associated with discriminative stimuli (in context) and consequences (even when the consequence for a behavior is selected from an array, e.g., in decision making or choice among moral preferences). Thus, any comprehensive

theoretical approach to moral development must recognize the historical context, that an individual's history of social contingencies would likely be a determinant of the formation of rules and for their selection. As will be noted in a later section, another way of looking at rules is as verbal behavior in the sense that behavior governed by rules has a history of reinforcement exclusively through the mediation of *other* persons (Skinner, 1957, 1969). This unique history of individuals results in interindividual differences in the acquired moral behavior patterns and moral rules (self-generated or provided by an instructing agent) that ultimately come to govern much of their moral behavior.

Second, the two approaches to moral development contrasted diverge on their epistemological orientations, being either absolutistic or relativistic. Thus, Kohlberg's approach to moral development is absolutist, stressing universal moral principles and principled thinking; in contrast, the social-conditioning approach is relativistic, stressing the contexts and consequences of action in moral development (Kurtines & Gewirtz, 1984). From a relativistic perspective, what makes given acts, and the antecedent and concurrent verbal rationalizations that often accompany those moral acts "right" or "wrong," stems proximally from the contingencies for them provided by significant environmental agencies (e.g., parents, teachers). That is, like any behavior, individual moral actions and judgments come under the influence of anticipated beneficial or detrimental consequences. Such moral responses are, hence, not romantic expressions of moral goodness or principled thinking but rather involve an increasingly sophisticated sense of how to further one's long term interests (Liebert, 1984). Theoretical discourse in the behavioral field has been defined by a set of normative assumptions that are representative of the relativistic and empiricist tradition in moral theory (e.g., Burton, 1984; Liebert, 1984; Mischel & Mischel, 1976). (See Kurtines, Alvarez, & Azmitia, 1990, for an analysis of diverse theoretical perspectives to moral development.)

Some Conclusions. Despite such differences, the cognitive-developmental approach and the learning-developmental social-conditioning approach are more compatible than they first appear. As earlier noted, some theoretical issues separating the two approaches stem from the different mechanisms they use to describe/explain the determinants and process of moral-behavior change. It is evident that the cognitive-developmental theories have been rather imprecise in accounting for the acquisition of, and changes in, the child's moral action patterns. They have developed a heuristic with mental "structures" or "schemas" as devices for organizing the causes/outcomes of the child's moral behavior development. In addition, Kohlberg has verbalized the assumption that moral judgments should correlate generally with, and hence predict, moral behavior. Even so, as yet no developmental theory, much less a theory of moral development, has detailed explicitly how reasoning processes lead to moral action. In this connection, we should note that it is not our intention in this chapter so much

to clarify if and how the child's reasoning processes lead to moral acts, or if and how the child's moral reasoning and verbal judgments should correlate with actions, as to describe the *mechanisms* involved in the origins of those acts (considering moral judgments to be overt verbal responses), and the derivative *rules* that come to guide and control them.

In Kohlberg's (1984) view, for actions to be termed moral they must involve an internal moral cognition or judgment component that must be assessed directly. In parallel fashion, our social-conditioning approach to moral action is open to the possibility of the actor's thinking/reasoning/judging affecting or relating to overt moral action. Overt moral reasoning and judgments may be precursors of, concurrent with, and/or outcomes of moral acts. If such responses remain covert, they can be taken into account functionally insofar as they are capable of being indexed by overt behaviors. From a behavioral vantage, such behaviors would be thought likely to serve more as concurrent reflections of the process leading to the action than as proximal determinants of that action. By emphasizing external variables, a behavior analysis moves away from the supposed inner activities and private events that are inaccessible to observers and can only complicate analyses of the processes that account for the child's moral, or any other, behavior. The behavior-analytic approach outlined in this chapter is characterized by the general assumption that the determinants of moral action can be isolated by an analysis of observable conditions of the past and present that have operated relative to moral actions, such as contexts and consequences (reinforcement history), without recourse to complex cognitive theoretical constructs and unobservable inner determinants. A pertinent example is a popular behavioral analysis of children's lying and how parents can encourage truthfulness (Ekman, 1989).

ORIGINS OF AND INFLUENCES ON MORAL BEHAVIOR

The Concept of Reinforcement in Operant Learning

Because reinforcement is the central engine of the behavior change denoting learning in the learning-developmental social-conditioning operant approach to moral development, a brief schematic survey of the assumptions, mechanisms, and derivative concepts involved is given here prior to our presentation of the determinants of the actions of the child that could be termed moral.

The concept of reinforcement under the functional analysis employed in operant learning is straightforward (Catania & Harnad, 1988; Skinner, 1938, 1953, 1969, 1974, 1981). In operant-learning, numerous and diverse definitions for environmental and behavioral events are possible in a behavior arena. A functional analysis examines the relations between specific sets of operational definitions of these terms, if any, attending to systematic changes in some attribute

(e.g., rate, amplitude, latency, intensity, duration) of the behavior unit under study as a function of the environmental-event unit contingent upon it, compared to when the environmental-event unit is not so presented. The change identified (typically taken to denote learning) confirms the functional utility of the definitions of terms and the units used and justifies the contingent event being termed "the reinforcing stimulus" or "reinforcer" for the behavioral event that is termed the "response" or the "operant." Further, the discriminative event in whose presence a response is followed by a reinforcing contingency acquires the role of a discriminative stimulus or contextual cue that sets the occasion for the emission of that response in the future.

In use, the reinforcement conception implies nothing more than that extrinsic environmental-event units exist which, when made contingent on behavior-event units (i.e., response classes), will systematically increase the rates (or other attributes) of some of those response classes. The process wherein presentations of contingent environmental-event units results in systematic response-unit *increases* is termed *positive reinforcement*, with the contingent events termed *positive reinforcers*. The process wherein presentations of contingent environmental events result in systematic response-unit *decreases* (or lead to avoidance or escape) is termed *positive* or *Type I punishment*, with the contingent events termed *punishing stimuli* or *punishers*. Two other major processes are also relevant. The process wherein the *removal* of environmental events contingent on response units results in systematic response-unit *increases* is termed *negative reinforcement*, with the events contingently removed termed *negative reinforcers*. Finally, the process wherein the removal or elimination of environmental events contingent on response units results in systematic response-unit *decreases* is termed *negative* or *Type II punishment* (Morse & Kelleher, 1977). We shall emphasize primarily the role of differential positive reinforcement in the shaping and acquisition of moral behavior in the sections that follow.

In the above frame, a corollary is that reinforcing (or punishing) stimuli need *not* function under *all* conditions for *every* response; a contingent-event unit that functions as a reinforcer (or punisher) for one response unit need not function as a reinforcer (or punisher) for that same response unit under every other contextual-setting condition or for any other response unit; and the fact than an environmental-event unit functions as reinforcing stimulus for a response unit in a particular context does not preclude its functioning in different stimulus roles in other contexts for the same, or for another, response unit (Catania, 1973; Gewirtz, 1971a, 1971b, 1972).

The mechanisms that account for moral behavior are conceived to operate at all developmental levels, from the earliest phases of the child's life. In the sections that follow, two main processes for the acquisition and functioning of moral behavior are delineated and contrasted. The first process discussed is direct *contingency-shaped and -governed* moral behavior and its derivative imitative mechanisms; the second is *rule-governed* moral behavior.

Contingency-Shaped Moral Behavior and its Mechanisms

Contingency-shaped behavior units (operants) are given meaning and strengthened by those of their *direct* consequences that function as reinforcing stimuli (Skinner, 1966, 1969). The acquisition of stimulus control over behavior termed "moral" is affected by such contingent consequences for that behavior in the presence of a discriminative (cue) controlling stimulus. Often the contingencies applied to moral behavior units involve contents that refer to, or specify, rights, duties, and/or obligations, and are typically applied by reinforcing agents in terms of societal or reference-group standards. Due to a history of an operant response class having been repeatedly followed by reinforcing-stimulus contingencies, the behavior unit will increase systematically in some attribute in the presence of a discriminative stimulus (in this way denoting conditioning). On that basis, immediate and long-term consequences for a behavior in an environmental context become, as it were, anticipated by a child. In this frame, much of what is termed moral behavior involves responses (including verbal ones) that have been shaped and maintained by positive consequences (e.g., approval, acceptance, praise) or responses that avoid or eliminate aversive consequences (e.g., disapproval, rejection, punishment).

As their behavior repertoires become increasingly complex, children become able to discriminate both the immediate, and the delayed long-term, consequences of their actions. The direct contingencies produce the outcome of children learning to "anticipate" the consequences of a given action—that is, *which* consequences prevail in a particular setting, and *how*, *when*, and by *whom* these consequences would be applied. Thus, a systematic focus on environmental/controlling variables requires the study of stimulus-response processes in earlier and contemporaneous contexts. Our emphasis thus far has been focused on child moral behavior, both verbal and overt action, that is shaped, modified and/or maintained by direct consequences of that behavior. In a later section, we examine how the child's actions come increasingly to be controlled and directed by explicit and implicit rules and, also, by remote rather than direct reinforcement or punishment contingencies. But first, in the following section the different classes of imitative mechanisms responsible for acquisition of the child's moral behavior which involve behavior shaped by its direct consequences are outlined and discussed.

Imitative Mechanisms

Much of moral behavior, moral values, and moral roles are acquired through a process of *imitation*. While "reflexive" imitation occurs immediately following birth and then appears to decrease during later development, "true" imitation is shown later during the first year and subsequently (Uzgiris, 1981). Infants first

perform imitative acts that are matched to the behaviors of significant others (in particular, caregivers) as models in their environment. Their imitative and vocal responses can be intermittently reinforced by the behaviors of these models and others, such as by their contingent smiles and touches (e.g., Rheingold, Gewirtz, & Ross, 1959), attention, praise, reciprocal imitation (e.g., Peláez-Nogueras & Gewirtz, 1987), and the like. Such contingencies can establish imitative-learning patterns in the infant's repertoire. Most of the time, these matching responses of the infant are emitted *immediately* after the model's behavior. *Delayed* imitation—where the child's response matched to the model's behavior is emitted after lengthy delays, or in the model's absence—is seen in more developmentally-advanced children in wider social contexts, in the process of rule acquisition, role taking, and group interaction, where the social-conditioning process can involve more elaborate forms of social interaction. These processes will be discussed subsequently under the broader heading of *pervasive imitation*.

An historical note on identification can be helpful at this point. *Identification* has been used variously to refer to the process by which motives, moral values, ideas, roles and conscience of an important other person (the model, a parent usually of the same sex) are acquired by the child. Freud (1933) regarded identification as the process by which "one ego becomes like another one, which results in the first ego behaving . . . in certain respects in the same way as the second; it imitates it and, as it were, takes it into itself (p. 90)." On an earlier occasion, Freud (1920) used imitation as the outcome, and index, of identification (Gewirtz, 1991). When assumed in Freud's approach to result from complete instrumental dependence upon, and an emotional tie (attachment) to, the model (typically the parent), identification has been termed "anaclitic." At the same time, it was assumed that "defensive" or "aggressive" identification resulted from fear of punishment (even fear of castration in the boy) from the model figure (of the same gender as the child), with the child avoiding the punishment by becoming like the model.

Pervasive Imitation. Under our functional-analytic approach, it has been proposed that a substantial proportion of the phenomena grouped under the concept of identification may be ordered by the concept of pervasive imitation. For that concept, the distinction between identification and imitation is to a large degree an arbitrary semantic one, with no fundamental differences in the way in which they are learned. From a social-conditioning analysis, the major reason we would prefer to use a single term like pervasive imitation is to preclude misinterpretations and to facilitate the fitting of existing and future data on identification processes into a framework that allows us more easily to tie in other important aspects of the learning process (Gewirtz & Stingle, 1968).

In a behavior frame, identification as pervasive imitative learning refers to the selective process whereby a child acquires a range of the behavior repertory of a parent (usually the parent of the same gender as the child), including behaviors

connoting moral values, attitudes and standards. Kohlberg's (1969; Kohlberg & Diessner, 1991) postulation of identification as the basis for early rule learning and therefore later moral reasoning and behavior could be reduced parsimoniously to the concept of conditional responding, with imitation a functional matching-response class comprised of diverse responses matched to a parent-model's behaviors. Such conditional responses can be emitted by the child after lengthy delays or in the model's absence, and can be acquired and maintained by extrinsic reinforcing stimuli usually provided intermittently by the parent's or other adult's reactions to the child's actions (Gewirtz 1969, 1971a, 1971b; Gewirtz & Stingle, 1968). The child's moral behavior is controlled similarly in both the immediate- and delayed-imitation cases. In the immediate case, the child's behavior is controlled by the stimuli discriminated in the situation. In delayed imitation, the child's moral behavior is controlled by the discriminative matching of those stimuli present in the immediate context with the stimuli that were present in an earlier context in which the model's actions were emitted. The discriminated stimuli serve, as it were, to prompt and in that way reinstate part of the original situation.

The cognitive-developmental approach to identification (Kohlberg 1963, 1969; Kohlberg & Diessner, 1991) and the social-conditioning model of pervasive imitation as identification (Gewirtz, 1978, 1991b; Gewirtz & Stingle, 1968) can agree in viewing the phenomena connoting identification as involving, first, the child's moral and other behavior being matched to those of a specific other with whom the child has a salient relationship and, in that sense, an "attachment" or "bond" and, second, a tendency of the child to imitate the behaviors across settings and relatively lengthy periods of time. Thus, the child's behavior becomes like the parent's, matching all about him/her including behaviors connoting his/her moral standards, as well as verbal judgments and moral actions.

In the cognitive-developmental approach to identification, the individual internalizes the moral values and rules of parents and other significant figures without the continuing availability of adult responding. Also, Kohlberg saw identification as a "motivated disposition" because of the intrinsic properties of perceived similarity of the actor to the model. On the other hand, in the social-conditioning approach to identification phenomena and the underlying process (Gewirtz, 1969; Gewirtz & Stingle, 1968), it was detailed how, what are to Kohlberg (and, incidentally, to Bandura, as is later noted) "intrinsically-reinforced" imitative responses, in reality may depend entirely upon intermittent *extrinsic* reinforcement from the significant-figure model and others. Thus, imitative moral behaviors can be emitted in the absence of the model, as in delayed imitation. As noted, the child focuses its pervasive imitation on at least one model and imitates not only a range of the model's overt moral behaviors, but also the behaviors implied in such general dispositions as moral values, principles, styles, motives, as well as moral judgments.

Match-to-Sample. An efficient paradigm to account for such imitative-matching phenomena can be provided by a conditional-responding conception such as is involved in the matching-to—sample paradigm (Cumming & Berryman, 1965; Gewirtz, 1971a, 1971b; Gewirtz & Stingle, 1968). In a simple discrimination-learning task, the presence of a single discriminative-stimulus attribute (S^D) sets the occasion for reinforcement of the single "correct" response. In a conditional-discrimination situation, the correct response for reinforcement is defined on the basis of the relationship of the attributes of two or more stimuli; for instance, the subject's moral response in a social context must match a conditional sample stimulus (e.g., the parent's behavior) for reinforcement. The discriminative stimulus for the child's response thus can vary across discrimination trials, depending on the (usually preceding) conditional stimulus. The conditional stimulus comes to function not as a simple, but rather as a differential cue for responding. Under this paradigm, a child acquires the pattern of matching its moral responses to those of the model (e.g., the parent), across occasions, as a result of these matched responses being extrinsically reinforced by the model or others (e.g., "You are as generous as your father").

Thus, acquisition of this *imitative response class* is thought to follow operant-learning principles (Skinner, 1938), in particular that diverse child moral responses leading to equivalent consequences are functional members of the same class—in this case, a matching-response class—and that the matching-response class can become conditional (i.e., focused) on a particular model or situation, the presence of which sets the occasion for extrinsic reinforcement of members of that matching-response class. Moreover, because the matching-response class of the child in ecologically valid settings is ordinarily followed only intermittently by extrinsic reinforcement from the model and other adults, such matching responses will often occur in the apparent absence of reinforcing contingencies. To those observers unaware of the conditioning history of the matching-response class in a child and, in particular, of the wider intermittent extrinsic-reinforcement matrix in which that response class is embedded, such intermittently reinforced child imitations of moral behaviors can appear to be instances of the "observational" or "vicarious learning" for which Bandura (e.g., 1969, 1971) has argued. On this basis, there are problems in the application to moral or other behavior of Bandura's social-learning conceptualizations, as well as of other cognitive approaches. This is because such approaches to diverse, including moral, behavior of the subject omit consideration of two features central to a behavior analysis, namely (1) the explicit occurrence of the behavior unit, and (2) the extrinsic environmental contingency that follows the behavior unit. Thus, modeling, "observational learning," and "vicarious" and "self-reinforcement" cannot be meaningful within an operant-learning frame because the *target behavior* in the observer, together with its controlling *antecedent* and *consequent stimuli* (i.e., the three-term contingency pattern of stimulus-response-reinforce-

ment) typically are not identified. An extensive analysis of such considerations and limitations of Bandura's model has been made elsewhere (Gewirtz, 1971b).

In sum, behavior denoting moral standards like honesty, justice, loyalty, conscience, or public or private virtue such as altruism, caring, sharing, or empathy, can be fostered in appropriate environmental contexts by the child being exposed repeatedly to behaviors of models that can be characterized as "honest," "resistant to temptation," "altruistic," or the like, and providing reinforcing consequences contingent upon the child's *matching* responses. In contrast, behavior denoting moral standards like dishonesty, greed, corruption, and/or selfishness can be fostered by exposing the child repeatedly to the model's behavior patterns characterized as dishonest, greedy, corrupt, and/or selfish, and providing reinforcing consequences contingent on the child's matching responses. These matching behaviors then would become part of the child's repertory of moral behaviors. Later in development, the overt matching behaviors of the child could occur in the absence of the original model(s) and be maintained by consequences mediated by the behaviors of diverse others conforming to group norms.

Role taking consists primarily of training the child (through differential contingencies for compliance and noncompliance of role-pertinent behaviors) to discriminate the characteristics of, and exhibit, specific behaviors required for a particular role. Role taking can involve the reinforced imitation of a set of actions of an influential model directly relevant to the class of which the model is a member. In the context of roles relevant to moral behavior, these responses could include those that denote upholding high behavioral standards that preclude transgression, prosocial behaviors such as concern for others, sharing, cooperation, and/or negotiation in a variety of social settings. This class of responses comprising the individual role may be controlled by a subset of specific rules in some given contexts.

RULE-GOVERNED BEHAVIOR

There is an important difference between rule-governed behavior and behavior under the discriminative stimuli that come to control ordinary direct contingency-shaped instrumental responses as well as matching responses. In particular, much of what we term moral behavior appears rule governed rather than contingency shaped. But before starting an analysis of moral behavior controlled by rules, the concept of rule-governed behavior must be defined and contrasted with the direct contingency-shaped behavior.

Rule-governed behavior has been distinguished theoretically and experimentally from behavior that is shaped directly and maintained by direct consequences (Catania, 1985; Catania, Matthews, & Shimoff, 1988; Cerutti, 1989; Hineline & Wanchisen, 1989; Ribes, 1987; Skinner, 1966, 1969; Zettle & Hayes, 1982).

According to Skinner's (1966) original distinction, rule-governed behavior is discriminative responding shaped by reinforcement of rule following. It has been proposed that rule-governed behavior can be modified by altering either its antecedents, its consequences, or both. In contrast, contingency-shaped behavior can be modified only by its consequences (specified by a contingency as well as by stimulus changes correlated with that contingency) compared to its absence. Thus, however similar in form rule-governed and contingency-shaped behaviors may appear, their controlling variables and functional properties may be different (Cerutti, 1989, p. 260).

Rules have been described and interpreted in diverse ways in various arenas by heterogeneous theorists. Apparently, the diverse interpretations have lead to some confusion even within behavior analysis. Most behavioral theorists agree on the notion that rule-governed behavior is discriminative responding that is shaped by the reinforcement of rule following (Cerutti, 1989; Skinner, 1966). Even so, after defining the conception of the rule, we will note in passing that there are exceptions (e.g., Ribes, 1987; Schlinger, 1990; Schlinger & Blakely, 1987; Zettle & Hayes, 1982).

The distinction between contingency-shaped behavior and rule-governed behavior was originally made by Skinner (1966), who identified rules as "contingency-specifying stimuli". In Skinner's (1969) account, rule-governed behavior is often determined by *verbal behavior* and therefore is only *indirectly* a function of its consequences. Thus, the acquisition of verbal language is a prerequisite. Rules can be formulated and provided by an instructional agent or be self provided. Skinner emphasized that the contingencies exist before the rules are formulated, that rules must be backed by contingencies to remain functional and that, although both contingency-shaped and rule-governed behavior are established by contingencies, the controlling variables and functional properties differ even when the behavior may be similar, if not identical, in form.

In cases where a behavior is rule-governed, that is under the control of instructions that describe contingencies (e.g., "Don't ever steal again; it is bad, a sin, you may go to jail"), the individual's behavior is not necessarily under the control of the direct contingencies or actual consequences specified in that instruction. In other words, the individual does not need to experience the consequences specified by the instructions for his/her behavior to stop occurring. In this instance, it is likely that the behavior is under the control of parental disapproval or peer rejection if s/he steals. This case can illustrate behavior that is maintained by contingencies of rule following and not by direct natural consequences of the action (since the child has never experienced being in jail.)

As noted earlier in the theoretical analysis of rule-governed behavior, the functional difference between rule-governed behavior and contingency-shaped behavior is that rule-governed behavior can be modified by altering its antecedents; in contrast, contingency-shaped behavior is modified *only* by its consequences (when no verbal antecedents specifying contingencies are involved)

(Cerutti, 1989). Further, a rule may override the possible effects of reinforcers or punishers as direct consequences produced by the behavior in question (like in the earlier example of going to jail) (Catania, Mathews, & Shimoff, 1988). This insensitivity of a response to direct consequences has been demonstrated experimentally (Catania, Matthews & Shimoff, 1982; Kaufman, Baron, & Kopp, 1966; Lowe, Beasty, & Bentall, 1983; Matthews, Catania, & Shimoff, 1985; Matthews, Shimoff, Catania, & Sagvolden, 1977).

The insensitivity to direct consequences involves a relative absence of control over the response by collateral consequences (those produced after the behavior has been generated that accompany the consequences specified in the rule or instruction). The role of these collateral consequences in determining the initial form of responding is minimal when the behavior is under the control of the rule because of the behavior's sensitivity to contingencies of rule following that shaped it (Cerutti, 1989). In addition, when accompanied by subject verbal behavior (initiated via instructions or constituting overheard private talk), behavioral performance under contingency control becomes more rule-governed than contingency-shaped (Catania, Mathews, & Shimoff, 1988; Catania, Shimoff, & Mathews, 1989). The paradox that accompanying verbal behavior can make other human acts less rather than more sensitive to their consequences has been noted, as has the fact that rule-governed behavior is sensitive to contingencies only to the extent that verbal rules are consistent with them. When this is not so, the contingencies that maintain the rule may override some consequences of the behavior, in these cases by getting in the way. In this sense, verbal behavior can be said to insulate behavior acts from their consequences (Catania et al., 1988).

Another difficulty involves determining if a behavior is governed by a particular rule, or if the rule is simply a collateral outcome (Zettle & Hayes, 1982). In other words, both the rule and the behavior it appears to govern could be joint outcomes of the same controlling variables. Despite this difficulty, one fact is clear. The concept of rule-governed behavior is needed because it accommodates the description of complex behavior, like moral action, that is under the control of, and that can be modified by, antecedent verbal stimuli. Thus, effective rules are discriminative stimuli, but not all discriminative stimuli are rules (Zettle & Hayes, 1982), and what is crucial to the distinction is that rule-governed behavior involves *two* distinct sets of contingencies, those related directly to the behavior of interest and those related to verbal antecedents of that behavior. In this frame, it seems reasonable to follow Skinner's (1969) proposition that rule-governed behavior it is often determined by verbal behavior and only indirectly by its consequences. The general notion involved is that direct-contingency or related contingency-shaped behavior refers to consequences that do not depend upon social mediation—Catania et al., 1988, 1989; Cerutti, 1989; Skinner, 1966, pp. 244; Zettle & Hayes, 1982.)

CHILDREN'S MORAL BEHAVIOR AS RULE-GOVERNED

As earlier noted, moral behavior is behavior that can be learned, and much of the behavior termed moral appears to be controlled by rules rather than by direct contingency shaping, particularly in children that have already acquired language and in adults. Moral behavior can be trained by parents who foster empathy through modeling or who prompt and reinforce such behavior patterns as those denoting caring, helping, kindness, sharing, responsibility, and justice. From the behavior-analytical perspective, there is an important distinction between the process of shaping and coming to maintain a child's moral responses via *direct* consequences and the process of *indirect* or remote consequences that govern those responses in the form of a *rule*. There follow some examples in children of direct contingency-shaped moral behavior as well as of rule-governed moral behavior.

To exemplify direct contingency-shaped moral responses, consider a teacher praising immediately a child's helping and sharing with a peer, for instance by saying, while smiling and/or hugging him, "You're a good boy; you just did the right thing; you should always share with others and help them." (Smiling, hugging and/or praising *contingent* on the child's acts potentially could function as reinforcers for the response class in question.) In contrast, consider a teacher saying contingent on a child's having destroyed a peer's work, "You've acted very badly; I don't like you when you behave like that!" The teacher's contingent verbal reprimand can function as a punitive event for the child's aggressive behavior if the subsequent rate of aggressive responses towards peers decreases in the teacher's presence. Verbal behavior from the teacher can be, but is not necessarily, a component of the direct-contingency complex unit (i.e., it does not need to be part of the reinforcing or punishing events that follow the child's action). For instance, the child's behavior of destroying a peer's work may be followed by direct consequences from peers. The child's peers may not play or share with him for a period after his destructive act.

In rule-governed behavior, the child's actions are controlled very differently. For instance, the child's anticipation of what would happen if she/he would disobey the parent's or teacher's instruction/order can be controlling her/his behavior, rather than the natural consequences that would result directly from that action. That is, a child carrying out or not carrying out a given instruction might bring on consequences that differ markedly from those following the action itself. A request, instruction, or command may specify behavior that implies consequences (aversive or punitive in the command or positive reinforcing in the request). For instance, consider a child who has been told by the parent not to leave school settings without permission and/or supervision because it could be dangerous. When peers try to influence the child to skip classes and leave school to go with them, the child decides not to do so. This child could be more concerned with the consequences of disobeying parental and school rules,

than of the direct pleasant or detrimental consequences of leaving school settings with peers (i.e., having fun with them, missing classes, getting behind academically, and/or being on the street unsupervised). The child's behavior is actually under the indirect control of parental/school instructions and not under the direct control of the natural contingencies of that action. In such instances, it can be said that rule-governed behavior has become "insensitive" to direct, natural contingencies, since indirect consequences of rule following acquire greater control over the child's behavior and preclude the interaction of such behavior with otherwise natural direct consequences. This is an instance in which parental instructions may insulate the child from experiencing the natural consequences of her/his actions.

In addition of instructing the child on how to behave in a given circumstance, parental verbal instructions may also describe for the child the consequences of an action given that situation (i.e., collateral consequences). Thus, parents and teachers often relate to their children the consequences of their actions in given circumstances under the assumption that the description of the contingencies for alternative acts will produce/induce the "right" pattern of child moral behavior. In a similar way, rules may acquire meaning for the child when the child acquires and exhibits conditioned moral-action patterns in association/pairing with antecedent parental instructions and/or with parental verbal rationales during or immediately after direct contingency-shaped response acquisition. An explanation given by the parents after the child's action typically specifies why the action was right or wrong (according to the parents' standards), while reminding the child of the steps and consequences that were involved. In exploring the differential functions of verbal stimuli (in the form of a self-made rule) in the acquisition of complex problem solving, the importance of verbal *recognition* by the child of "exposed" relations (resulting from prompts to facilitate the child's explicit evaluation of his/her responses, to appreciate how the responses relate to their consequences) has been shown for the acquisition of the conditional discrimination task (Ribes, Penaloza, Moreno, Hernandez, & Hickman, 1988).

Parent/teacher rationales during and/or after the child's acts may increase the effectiveness of a rule, specifically because the parental/instructor's verbal behavior may become a discriminative stimulus for the child's action in the same or similar contexts. A simple illustration of how this process may operate follows: A parent says to the child contingent on an action she has emitted: "Why did you destroy your sister's homework? It was *wrong* to do that. Now, you see, she is upset with you because she has to redo her homework. *Don't* ever do it again! As a *consequence* of your act, you may not watch television tonight". After several pairings of the rationale (i.e., "It was *wrong* to do that") and/or instruction ("Don't do it again") with the consequence (losing the privilege of watching television), the rule comes to precede and, hence, control the child's subsequent responses (to his sister) in that context. Subsequently, anticipating the consequence, the child is more likely to reconsider before acting (e.g., "I should not

destroy my sister's work, my mother says that's wrong and I won't be able to watch television tonight). In this sense, rules for connecting experienced events are self-formed by the child when the child associates its *behavior* with *discriminative stimuli* and *consequences* (i.e., the three-term-contingency association). Thus, a rule may be conceived to be a conditional statement that specifies both the conditions under which a moral action is to be undertaken and the consequences that may follow.

Moral development of the child is based on the accrual of an extensive repertoire of acquired moral rules. Developmental level may be manifested in her/his understanding and compliance with such verbal rules. In the cognitive-developmental literature, such children's rule-governed behavior, and the pattern, quality, and extensiveness of the moral behavioral repertoires explained, is often characterized as being more or less "mature" or at a higher or lower stage level of moral development (Kohlberg, 1969, 1976; Piaget, 1932), or as having a relativistic or universal moral style of solving moral dilemmas (Kurtines, 1987). In a like manner, research data on developmental changes in the child's perceptions of, or compliance with, moral rules are often inappropriately related to a developmental *stage* level and/or to chronological *age* as explanatory causal variables. But neither stage nor style characterizing a child's behavior, nor age variables, provide a *causal* explanation for behavior. This is because stage refers merely to the ordinal level of the child's behavior pattern within a sequential-classification matrix; and, in itself, the "empty variable" chronological age manifestly indexes neither causal nor ordinal-classification variables for behavior (Baer, 1970; Gewirtz, 1969, 1978). Therefore, for a process analysis within a social-conditioning perspective, neither developmental stage nor chronological age can provide the required proximal indices of causes or processes of moral development. Hence, these terms are available to provide only incidental conceptual leverage over the sequential phenomena comprising the child's moral development.

What in this chapter has been termed "morality" may be conceived as comprised of a complex of rules that govern behavior, the developmental question being how those implicit and explicit rules come to acquire discriminative control over the individual's moral actions. On the basis of rule acquisition and subsequent experience, it is thought the child eventually abstracts out a second-order rule or moral concept (which we conceive as knowledge of stimulus attributes that control action) that can direct actions in diverse contexts. Thus, the rules that operate to govern overt behaviors in a given context could be determined by: first, their match to the current environmental situation; second, their past success; third, the completeness with which they represent the current situation; and fourth, their relevance to other currently useful rules.

We should note that the moral rules proposed below as components of the pattern of the child's moral behavior serve as heuristic devices in a process analysis of moral action. The *explicit* rules that can control and direct action in

the behavioral approach (rules that will be explicated in the next section) could be seen as constructs of a similar order as the schemas/structures of the cognitive-developmental approach, though rules are concepts tied directly to action categories.

The Acquisition of Explicit Rules

Implicit rules are thought to be acquired through direct contingency-shaping (i.e., experience/training), but to be as yet not readily labeled or verbalized by the child. An implicit rule can reflect the direct the relationships between discriminative stimuli and responses under the control of contingent stimuli. When implicit rules are verbalized by or for the child (in a reconstructive fashion), they may become one form of *explicit rule*. Explicit rules are thought to develop often at a later phase in the child's verbal description of social interactions and may emerge in a series of steps. Thus, a description of a given moral action may be a preliminary form of its explanation, and later, when verbalizable, the explicit rule may become discriminative to instruct/control the occurrence of such moral response classes. In turn, it is thought that such rules can be modified by a change in the contingencies controlling the underlying discriminative stimulus-response relations. In this way, these explicit rules, acquired directly by social conditioning (imitation, match-to-sample) or indirectly via mechanisms of transfer of training, response generalization or, as we shall see immediately below, via explicit verbal instructions from parents/adults, come to control moral-action patterns.

Explicit rules are verbalizable statements of the child deriving from parental instructions that specify appropriate behaviors in the particular context, or commentary/rationale from parents that specifies future, or labels concurrent, consequences of an act during contingency-governed-response acquisition. A variety of parental or teacher instructions control moral behavior in the child's everyday life. Indeed most of the conventional moral behavior of the child appears to be learned from instructional cues (e.g., directions, warnings) by others rather than from direct experienced contingency natural consequences of behavior. The parental instruction merely signals that consequences of a particular sort are likely to follow certain courses of action. The statement of explicit rules is probably the most pervasive method parents use to instruct and train their child's moral actions. Rule effectiveness depends primarily upon the child's previous experience with consequences for following or not following such rules. If stating a rule leads a child to function in accordance with that rule, and his compliance is reinforced positively, after several repetitions it is likely that the procedure would be effective (Bijou, 1976).

For an explicit rule to be acquired rapidly, these adult verbal instructions or reflective commentaries may have to be concurrent with one or more contingently-shaped response trials. Parental explanations and verbal reviews to the

child of the cue-response-contingency sequences (concurrently or immediately after the child has emitted a moral act), can accelerate the process of acquisition of the explicit rule. This method of reviewing verbally the ongoing moral act with the child as well as the consequences of the act after their occurrence, often is more effective in training the child's moral behavior than would be a complete instructional set preceding a moral act in a new context for the child. In sum, an advantage of explicit verbal rules for training aspects of child moral behavior is that such rules facilitate behavior coming under the (indirect) control of verbal descriptions of contingencies, often even more efficiently than when the response in question is emitted and then actually followed by the direct environmental contingencies.

It is thought that the important feature of the explicit rule is that it substitutes verbal discriminative stimuli for descriptions of typical consequences. Verbal instructions from a parent or other prestigious figure can control the child's behavior in contexts where the natural contingencies are ineffective or slow to be effective. Thus, stating the rule will become a discriminative stimulus for the action prescribed by the rule (Bijou 1976; Catania, 1984). This should be the case particularly when those explicit verbal instructions are given by a parent/caregiver who ordinarily mediates reinforcing contingencies for diverse child responses. Even so, it is difficult to conceive of effective instructional control by a rule unbacked by at least occasional extrinsic-reinforcement contingencies. The rule-governed behavior of the child, established by explicit verbal statements of parents specifying consequences, also can become insensitive eventually to those explicit instructions/statements when consequences do not maintain the behavior of rule following. In many cases, it may be necessary for the child's moral response to be reconditioned to the verbal discriminative stimuli by shaping with direct consequences. In those cases, training by parents involving the child's learning by doing—direct experience with direct consequences—could be more effective than training by parent via explicit verbal instructions specifying the contingencies for the behavior.

A few words will follow about the practical advantages of verbal instructions from parents/adults in providing verbal stimuli that can come to control, first, the child's behavior of following instructions in a wide activity range (i.e., generalization), then to become effective in representing natural contingencies and to control diverse child behaviors, including moral acts, through the life span.

Generalized and Discriminative Control of Moral Rules

Rule transfer is a phenomenon that can occur when training stimuli and consequences for the response are identical or very similar to those in another context. The ease with which such explicit rules are acquired is assumed to depend on the extent to which the child has experienced similar moral rules in earlier learning. Association value, meaningfulness, frequency, intensity and duration are some

of the variables likely to affect this process. When the transfer process is operating, the acquisition of a given moral rule may affect the acquisition of a second such rule. One of the mechanisms that could account for this transfer of learning is *stimulus generalization*, under which a child's moral response, reinforced in a particular discriminative stimulus context, initially may occur also in contexts *similar* to the original training context. In those new contexts, the initial response occurrences may be reinforced, so they might recur there.

Nevertheless, children may show consistent moral conduct if the range of situations that they confront is restricted to the original learning context or to very similar settings (Hartshorne & May, 1928). When setting is changed, the child's moral behavior may become inconsistent. The pattern of conduct differs from one context to another when the discriminative context is different (i.e., discrimination). The presence of a particular discriminative event triggers the rule that governs the behavior in question. In the same way, children learn to discriminate different contingencies associated with different adults. Particular adults can provide differential discriminative stimuli for reinforcement. The child learns to respond differentially to adults (father, mother) depending upon the behaviors that have been differentially reinforced by adults. The child's moral behavior under the control of an adult's presence is a clear case of a discriminated responding (under stimulus control). However, when there are no supervising adults in particular contexts, the child's adherence to particular moral practices would be a function of the similarity between the discriminative stimulus controlling the response and the events present in the new context. Stimuli that resemble the discriminative stimulus demonstrate a functional capacity to evoke members of the class of operant moral behaviors (i.e., generalized responding).

With increases in developmental level of the child's behavior repertory, the operant behavior termed moral changes systematically, in form and content, with the discriminative stimuli that come to set the occasions for response occurrence becoming more variegated and complex. These changes will, of course, conform to the moral practices and rules of the family and society. Actual changes in children's moral judgments and actions will result from their consequences, some of which strengthen (i.e., reinforce) new forms of moral action while other, unacceptable, forms of moral behavior will be weakened or eliminated by punitive consequences.

ON REASONING AND JUDGMENTS

Ideally, the verbal judgment of the child should be studied under controlled conditions. Such a verbal response has a history of antecedents and consequences, and may be emitted concurrently with other potentially-relevant behavior indices. Hence, it should lend itself to experimental control and an analysis into causal and concurrent variables could be profitable. As overt communicative

responses denoting end-of-process verbal judgments would result from features of the antecedent reasoning process, they could constitute a beginning in establishing the relationship between a range of stimulus conditions (e.g., moral dilemmas) and responses (e.g., a child's verbal judgments). In this context, Bandura and McDonald (1963) found that children's judgmental responses are readily modifiable, particularly through the utilization of adult "modeling" cues (or reinforced matching-to-sample, as we interpret the process). While interpretations of the meaning of these results have been controversial and the theory behind them inadequate under the conceptions of an operant-learning analysis (Gewirtz, 1971b), the implications of the data are clear—modes of moral reasoning and verbal judgments are subject to social influence, and thus may be modified in the very settings in which they are solicited or emitted.

Piaget (1932) distinguished between two types of moral thought, *effective* moral thought and *verbal* moral thought. Based on this distinction of Piaget and the control that implicit and explicit rules could exercise over moral behavior, there seem to be two different types of child's moral judgment (seen by many as a type of reflective behavior). First, there is *effective moral judgment*, controlled by implicit moral rules. Piaget recognized that the child's moral experience is built up gradually by actions as the child comes in contact with his environment. It is the effect of the environmental contingencies on the child's effective moral behavior that leads the child to form such implicit judgments, that can operate as rules that will guide the individual on how to act in each particular context as comes his way. Second, there is *verbal moral judgment*, bound to the former effective moral judgment, which enables the child to evaluate his actions explicitly (i.e., verbal recognition of exposed relationships.) This verbal overt behavior appears whenever the child is called upon to judge verbally his or other people's moral actions. Even when for the child verbal judgment does constitute a realization of his/her moral activity, the relationship between judgment and action is very far from being simple to observe and measure. When the child's verbal moral judgment turns into an ubiquitous generalized response, we may find that the response might correspond neither with effective moral judgment nor with the child's moral actions.

Hence, a researcher may have trouble distinguishing between socio-moral conventional behavior and idiosyncratic "true" moral behavior. When a child is asked in a given situation for a moral judgment, s/he may just verbalize the learned rule. Individuals typically conform to the ideas and conventions they have been taught explicitly during socialization practices which often emphasize explanations for moral acts. In making a distinction between socio-moral conventional acts and "true" moral acts, we can conceived that the former seems to be governed by the enforcement of parental or authority instructions and/or social constraints, and the latter seems to be under the control of implicit rules which are derived exclusively from direct experience (self-generated) and are not manifested verbally (see also Turiel & Smetana, 1984).

Another judgment type one can identify is *verbal imitative judgment* that occurs when the child is simply copying or matching his/her verbal statements to those of an influential model, without necessarily operating under a moral rule. Also, in other instances, we can identify that the child's moral judgments involve only *verbal exploratory responses*, that is, a child simply seeking approval or avoiding disapproval from the audience (e.g., an interviewer). Such responses may be only verbal behavior and inconsistent with his/her actions. Piaget (1932) noticed that verbal morality enters whenever the child is asked to judge the actions of others that do not interest him/her or press the child to verbalize general principles underlying his/her acts. Neither our behavioral approach nor the Piaget-Kohlberg theory, asserts that the child's "reflective moral reasoning" in a hypothetical dilemma is invariably reflected or necessary present in real-life moral action.

In the present chapter no inquiry was made into the structure and mechanisms of reasoning or judgment, on the obvious basis that any probing must necessarily be indirect, and various modes of probing might lead to artifactual conclusions. An indirect method relies mainly on the child's verbal explanations of their moral judgments for possible actions. Piaget (1929) recognized these limitations when he asserted that looseness inevitably attaches to the indirect method, and after three preliminary studies he was left with fragmentary results that would have to be classified and interpreted in the light of the fresh details to provide the outline of a psychology of childrens's reasoning.

FROM MORAL JUDGMENT TO MORAL ACTION

From James Mark Baldwin's (1911) time, cognitive-developmental theorists (Piaget, 1932; Kohlberg, 1969, 1976, 1982) have defined ethical/moral stages in terms of the formal properties of moral judgment (that were focused upon by moral philosophers). As did Baldwin, his contemporaries John Dewey (Dewey & Tufts, 1932) and Wm. McDougall (1908) also approached moral development ("moralization" to McDougall) as involving the child moving through levels or stages-not unlike Baldwin's and Kohlberg's approaches. Moreover, cognitive-developmental theorists have emphasized verbalizations to provide the formal properties of moral judgments and reasoning, giving scant attention to moral action/behavior per se, much less to the socialization antecedents of moral action.

For his part, Kohlberg specifically followed Piaget (1932) on the relation between judgment and action. Thus, for Kohlberg (Kohlberg & Candee, 1984) " . . . moral judgment arises out of moral action itself, although there is no single causal direction. A new stage of moral judgment may guide new behavior, whereas a new action involving conflict and choice may lead one to construct a new stage of moral judgment (p. 53)." Kohlberg holds that, ultimately, the

mediating judgments of deontic choice (what is morally right) and responsibility (a commitment to act on one's deontic judgment) are the joint basis of moral action.

In contrast, behavior-oriented theorists have routinely approached behavior/action directly and reasoning/judgments to a lesser extent if at all (though expressed reasoning and judgments are very much behaviors under a behavior analytical conception). All action, moral behavior included, is approached as a function of contemporaneous and past environmental events, thus including attention to the factors comprising socialization. With reference to the verbal behavior denoting reasoning and judgment, typically the assumption is made in behavioral analyses that, as joint outcomes of the same process, a verbal judgment (private or public) would ordinarily be concurrent with a terminal act of an S–R (stimulus-response) chain or with an act occurring earlier in the S–R chain leading to the action. In this frame, a complete process analysis of moral tendencies must focus on moral overt-behavior action outcomes. An exception to this norm is conceivable when a research attempts systematically to probe the bases or reasons underlying either judgments or actions or the relations between reasons/judgments and action.

The research by Hartshorne, May, and their associates (Hartshorne & May, 1928; Hartshorne, May, & Maller, 1929; Hartshorne, May, & Shuttleworth, 1930), which came after the conceptualizations of Baldwin and his contemporaries, is in contrast to their emphases on moral judgment as well as to the later work on moral reasoning done by, and in the traditions of, Piaget and Kohlberg. The researches of Hartshorne and associates emphasized overt moral behaviors such as honesty, deceit, and self control, and concluded that moral behaviors represented situational conformity to group norms and were also influenced by the consequences of that behavior (for a review of that work, see Kohlberg, 1982, 1984 Ch. 7, 1987 Ch. 7.) We have noted that there is a substantial difference in emphasis between the dependent variables used by cognitive-developmental theorists, namely those denoting verbal reasoning/judgment, and those employed by behavioral researchers, namely action. That distinction maintains for the moral-development research on prosocial phenomena in the moral realm, under such labels as altruism, empathy, virtue, and the like. In that segment of the moral area, behavior/action, not reasoning/judgment, receives the overwhelming emphasis (see, e.g., Hoffman, this volume; Eisenberg, Vol. 2, this handbook).

The stated moral judgment of the child in response to hypothetical moral dilemmas can vary with the specific context and the child's history of experiences. Research on the child's process of *decision making* in hypothetical situations (i.e., the moral dilemmas), where the researcher describes an ambiguous moral situation and asks the child to tell what she/he would do and why, necessarily requires a separate analysis from what the child's action would be in real life circumstances. One reason for separating these analyses is that the predictive

validity of verbal judgments in hypothetical situations for action in real life circumstances is for the most part unknown. If a repertoire of verbal moral judgments would already be present in the child, a response generalization processes to similar contexts might occur. On the other hand, in actual situations the child may respond quiet differently since his/her behavior is a function of different discriminative stimuli which might lead him to different or unknown real consequences (where there is no history of conditioning). Here, the situational context for the child's moral action is different from the child's verbal responses to hypothetical moral dilemmas.

EPILOGUE

Behavior analytic mechanisms were proposed for the acquisition of moral action in both pre-linguistic and verbal individuals, and of reasoning and action in the latter. Kohlberg's postulation that identification forms the basis for early rule learning and therefore for later moral reasoning and behavior was noted and contrasted with pervasive imitation in the social-conditioning approach to moral development. Internal schemes that regulate action in the cognitive-developmental theory were seen as forms of *rules* that can develop through instrumental training and imitative mechanisms. Rule-governed moral behavior was distinguished from direct contingency-shaped moral behavior, and the role of each type in social learning contrasted. A separate analysis distinguished between judgments of hypothetical moral dilemmas and moral action in life settings.

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