Morality as a System of Rule-Governed Behavior and Empathy

Martha Peláez

Florida International University

From the present behavior-analytic approach, moral behavior has certain exclusive characteristics that make it different from other social behaviors: (a) behavior is intentional or deliberate; (b) behavior is perceived, named, or thought of as "right" or "good" by the agent and has no obvious or apparent direct beneficial consequences for that person; and (c) behavior is governed by verbal rules. This paper addresses some of the main problems with the traditional cognitive-developmental approaches. The case is made that by identifying and studying the different forms (or structural dimensions) of rules and their varied functions, controlling relations, and the various processes involved in the derivation or transfer of new rules, it is possible effectively to address some paradoxical questions regarding moral actions. One basic question emerges: What maintains behaviors denoting "self-sacrifice" or "altruism," where no obvious direct contingencies for the actor appear to be controlling these kinds of behavior? Empathy is discussed as an establishing operation derived from aversive controlling histories and determined both biologically and contextually.

The Present Behavior-Analytic Approach

Morality involves both reasoning and acting. It refers to the quality of acting in accord with standards of "good" conduct while possessing a system of verbal behavior (rules) about "right" and "wrong" conduct. Paradoxically, both Kant and Hobbes influence the present approach. Like Kant, it is stressed here that moral behavior has certain exclusive characteristics: (a) it is behavior that is marked by intentional or deliberate actions (e.g., saving someone's life by accidentally pushing the person away from a passing car, is not perceived as a moral act), and (b) it is behavior that is perceived, named, or thought of as right or good by the agent and may have no obvious beneficial consequences for the moral agent. To Hobbes on the other hand, definitions of moral concepts such as right and wrong, good and bad, involving justice or injustice, are assigned by their historical and current context.

The present view is in agreement with existing behavior-analytic views (e.g., Gewirtz & Peláez-Nogueras, 1991; Goldiamond, 1968; Hayes, Gifford, & Hayes, 1998; Malott, 1988; Newman, Reinecke, & Kurtz, 1996; Schoenfeld, 1993; Skinner 1953). As Skinner (1953, p. 324) has noted: "The behavior of an individual is usually called good or right insofar as it reinforces other members of the group and bad or wrong insofar as it is aversive." The main emphasis, however, in this paper is the analysis of moral behavior and moral judgments based on verbal behavior and embedded in a system of rule-governed behavior (see also Peláez-Nogueras & Gewirtz, 1995). In this paper, the analysis of forms (or dimensions) of rules (Peláez & Moreno, 1998) receives special attention.

Problems with Cognitive-Developmental Approaches and Hypothetical Moral Dilemmas

Cognitive-developmental theorists like Piaget (1932) and Kohlberg (1969, 1981, 1984; Kohlberg & Diessner, 1991) have stressed that understanding children's moral behavior, requires the understanding of their reasoning about moral dilemmas (e.g., DeVries, Reese-Learned, & Morgan, 1991). Cognitive theories of moral development, however, often fail to adequately consider both moral action per se and the relevant contingencies. For the most part, the cognitivists have concentrated on judgments and expressed reasons about hypothetical dilemmas. This reliance on the moral reasoning and judgment of the child based on hypothetical situations has limited an understanding of the proximal causes and influences of moral action, particularly in cases where verbal judgments and reasoning are neither precursors, nor concomitants, of overt moral action. Unlike cognitive-developmentalists, our behavior-analytic position holds that moral reasoning (as verbal behavior) and moral conduct can result from independent processes, different setting factors, and sets of contingencies. No simple contingent relation or association is taken to exist between saying and doing and, in a given context, any correspondence between stating a rule and following it, must result from training. Knowing or being able to verbalize a rule does not necessarily predict that the subject will behave consistently with that rule (Reese, 1989). Thus, a systematic focus on environmental/controlling variables is essential, and requires the functional analysis of behavior in past and present contexts.

Morality as a System of Rule-Governed Behavior

Moral actions are often governed by self-stated verbal rules, which can preclude the agent from experiencing the direct contingencies. One question central to this paper concerns the relationship between the different types of rules (e.g., implicit, self-generated) and altruistic behaviors. As contextual factors or establishing operations, how do rules affect overt moral actions such as those involved in altruistic or self-sacrificial behaviors (i.e., to give one's life for a cause or to save others)?

If one accepts the notion of morality as a system of rule-governed behavior, then one should identify and study the

different forms of rules in addition to their different functions and controlling relations. The various learning processes involved have special significance. As we have discussed elsewhere (Peláez-Nogueras & Gewirtz, 1995), moral behavior is rule-governed, and can result from diverse developmental learning processes ranging from generalized imitation to derived stimulus relations, the transfer of learning and transformation of rule function. Identifying these different processes in the generation or derivation of new rules, in particular transfer and transformation of function, enables the effective addressing of some paradoxical questions related to moral actions.

Paradoxical behaviors include those of self-sacrifice, martyrdom, and altruism, where no obvious direct-acting contingencies for the agent appear to be controlling his/her moral behavior. Actually, the consequences are rather obvious for the behaving agent. The following excerpts, from a news report in August of this year concerning events in Palestine, shed light on the deep rooted concept of martyrdom (shahada) in Islamic thought and its effect on the "intifada." In this excerpt, one notices the religious devotion of suicide bombers before embarking on their attacks, the joy demonstrated by children who express their will to become martyrs and the customary jubilation of mothers when learning of their son's deaths. The Palestinian press repeatedly exalts the religious status of the martyr (shahid) for the sake of Allah. The rules describing the rewards earned by the *shahid* according to Islamic tradition are as follows:

> From the moment his first drop of blood spills, he feels no pain. He is absolved of all his sins; he sees his seat in heaven; he is spared the tortures of the grave; he is spared the horrors of the Day of Judgment; he is married to a 'black-eyed' [woman]; he can vouch for 70 of his family members to enter Paradise and, he earns the crown of glory whose precious stone is worth all of this world. (Miami Herald, August, 2001)

Experts in religious studies explain that pursuit of martyrdom is virtuous in Islam, but the community and its leaders see not every soul as capable. The individual striving for martyrdom must have a high degree of faith, religious determination, devotion and loyalty to supreme religious and national causes. The religious concept of martyrdom is evident in statements attributed by the media to relatives of shahids, and to the shahids themselves. Al-Hotari, who committed a suicide bombing in Tel-Aviv, left a note that expressed faith in the divine reward that awaited him: *"There is nothing greater than being martyred for the sake of Allah, on the land of Palestine. Cry in joy, my mother, hand out candy, my father and brothers, for your son awaits a wedding with the black-eyed in heaven."*

The above illustration points to the question of interest: How do rules (whether explicitly or implicitly provided, self-derived or stated by others) acquire control over this type of moral action? I address this issue next.

The Forms and Function of Rules

Rule-governance can accommodate the description of complex behavior determined by a class of antecedent verbal stimuli. This implies a strong relationship between moral behavior and language. Rigorous analysis of rules requires identifying the contingencies involved in terms of stimulus *form* and response *function*. The two sets of contingencies to be analyzed are those described in the rule (SD–R–SR) and those contingencies affecting the listener's moral behavior (Sd–R–SR); the latter contingencies resulting from direct moral acts.

Any change in the components of a contingency, as well as in the contextual variables within which the contingencies operate, could alter the function of the moral rule. Moral behavior, like other complex human behavior, can only be meaningfully understood when analyzed as an *interdependent* unit. Co-dependent relationships exist between the contingencies described in the rule and the moral behavior of the listener. A rule's function can only be identified in terms of how the behavior of the speaker affects the behavior of the listener. In the same way, the behavior of the listener can only be understood with reference to the speaker-provided rule. For a complete analysis of the different types of rules based strictly on the function of rule-governed behavior, it is important to read the classification of rule-governed behavior by Zettle and Hayes (1982). These authors outlined a theory of behavior based on compliance, tracking, and augmenting types of rule-governed behavior. Subsequently, their analysis was extended to moral behavior using the same principles (Hayes, et al., 1998).

The present paper, however, emphasizes the form (structure) of rules based on conventional language meaning and its potential relation to response function. That is, in studying moral action one must analyze *both* the structure (form or morphology) and the function of the rules. This is because the probability of the listener (the moral agent) behaving according to a rule depends upon: (a) the verbal contingencies described in the speaker's rule (form); (b) the context within which the rule is provided; and (c) the listener's history with that or other comparable rules and contingencies. The essence of rule-governed behavior cannot be fully understood by examining the relation between implicit behavior and present contingencies. Instead, the analysis should focus on the relationship between implicit behavior and non-present contingencies, via the analysis of linguistic behavior (Ribes, 1987, p. 326). In other words, linguistic behavior is instrumental in creating and transforming the linguistic contingencies described in the rules as functional or direct-acting events.

A moral rule results from, or is acquired through: (a) diverse developmental learning processes ranging from generalized imitation to derived-stimulus relations, or (b) transfer and transformation of rule function. When rules are followed, listeners may have abstracted or learned the rule from: (a) their direct experience with the contingency arrangements; (b) transfer of learning and rule generalization; or (c) through the formation of stimulus-equivalence or derived-

relational frames. The discussion will now turn to the four dimensions identified in rules and their potential effects on moral behavior.

Originally proposed by Peláez and Moreno (1998), this taxonomy of rules takes into account dimensions of an entire contingency arrangement (the three-term-contingency) verbally described in the rule and considers how such contingencies may relate to behavior. This classification is made according to *four* dimensions of rules: (a) explicitness; (b) accuracy; (c) complexity; and (d) source. Figure 1 shows 16 possible types of rules resulting from combinations among the four different dimensions (i.e., explicit, inaccurate, higher complexity, and self-provided). Deconstructing rules into their constitutive elements and examining each of these dimensions individually allows a more precise moral-developmental approach. Such efficiency could be crucial in future experiments that feature the manipulation of different rules to determine their impact on rule-governed moral behavior and its developmental progression.

Figure 1. A combined taxonomy resulting in 16 types of rules. Each cell in the table represents a case of rules conformed to the basic four dimensions identified.

		Lower	Complexity	Higher	Complexity
		Accurate	Inaccurate	Accurate	Inaccurate
Explicit	Provided by others	a	b	c	d
	Self-provided	e	f	g	h
Implicit	Provided by others	i	j	k	l
	Self-provided	m	n	o	p

Explicit Versus Implicit Moral Rules

In terms of form, moral rules can be classified as *explicit* or *implicit*. Explicit moral rules *verbally describe* the entire three-term contingency arrangement (Sd–R–Sr). In this type of rule, specified consequences necessarily follow specified behavior in the presence of specified discriminative stimuli. Implicit moral rules, on the other hand, are incomplete in that the discriminative stimuli, context, or the consequence for the moral behavior in question are not explicitly stated in the rule; they are only implied. For example, in the rules: "You shall not steal" or "Killing is wrong," the punishing contingency is only implied. The rule may control behavior because the subject has a history of contingencies for obeying a class of "shall not" rules. This implicit rule may operate very explicitly in a particular individual who has an extensive history with commands and contingencies imposed by the rule giver. Hence, in rule-governance analyses, the various sources of control must be identified.

For the most part, correspondence between rule-governed behavior of the listener and the rule provided by the speaker will be determined by the explicitness of the contingencies described in the rule. The more explicit the elements of the contingency expressed in the rule, the more direct the influence upon the listener's behavior, particularly in novel situations (Martínez, González, Ortíz, & Carrillo, in press; Trigo, 1998). Recent experimental attempts to organize the present taxonomy with children showed that youngsters who have extensive experience with the situation and the operating contingencies responded very poorly when the rule provided was too explicit and burdened with unnecessary information (Herrera, Peláez, Reyes, Figueroa, & Salas, 2001).

The direct influence of explicit rules in novel situations involving moral acts, may be due to the conventional verbal stimuli involved. Contemporary behavior-analytic approaches, such as relational frame, are beginning to appreciate the significance of listener behavior (Hayes et. al., 1998 p. 254). Studying the behavior of the listener and the development of sets of derived stimulus relations that have linguistic *conventional meaning* to speakers and listeners will enhance our behavior-analytical approaches.

Accurate-Versus-False Moral Rules

Another important dimension of rules is the *accuracy* of the rules in terms of their correspondence with the direct-acting contingencies. An accurate rule specifies contingencies that, when followed, match or correspond to certain event-consequence relationships in the environment. An inaccurate (false or incongruent) rule describes contingencies that do not correspond to those encountered in the environment or describes remote (or improbable) contingencies that cannot be falsified or verified (e.g., "if you behave immorally you will go to hell"). The moral agent adjusts well to the rules when the contingencies described correspond to the programmed (direct-acting) contingencies (Degrandpre & Buskist, 1991). But when a lack of correspondence exists between the descriptions and the actual contingencies, following the rules becomes increasingly problematic and unlikely.

Research shows that rule-governed behavior may be sensitive (or adjusted) to the prescribed contingencies only to the extent that these prescriptions are consistent, or correspond, with the programmed contingencies. Following inaccurate rules may desensitize the listener to the effects of direct programmed contingencies (e.g., Buskist & Miller, 1986; Catania, Matthews & Shimoff, 1982). On the other hand, the behavior of the listener, may eventually become insensitive to incongruent or inaccurate rules or instructions, which do not lead to reinforcement (Martinez & Ribes, 1996; Michel & Bernstein, 1991; Martinez & Peláez, 2000).

Lower-Versus-Higher Moral-Rule Complexity

Rule *complexity* refers to the number of dimensions of the antecedent verbal stimuli and their relations (Peláez & Moreno, 2000). A rule's lowest level of complexity specifies no conditionality, or conditions under which there are exceptions to the rule. For example, "I shall not kill another person under any conditions" represents an unequivocal rule with one possible interpretation. However, a moral rule of higher complexity specifies one dimension or condition under which

the rule applies, and another condition under which the rule does not apply. For example, "I shall not kill, except under the condition where my life is threatened." This rule specifies a higher level of conditionality. Furthermore, a rule of an even higher level of complexity might involve a second- or third-higher-order class relation. A rule that specifies a second level of conditionality would be: "It is okay to kill the person who is threatening my life, unless my attempting to kill that person would endanger the life of innocents bystanders." In this case, the higher-order relation includes a second-order stimulus control of rules and associates one relation to multiple dimensions. Thus, language modalities and context or conditions are of significance.

Rule complexity, based on levels of conditionality, could be organized hierarchically. The system is *inclusionary*, which means that each level of complexity constitutes part of the next level. A multiple relation includes several dimensions and a second-order relation includes at least one first-order relation. Potentially unlimited complexity exists in such rules, as it is always possible to add more dimensions and more relations.

Correspondence between levels of rule complexity and verbally-controlled behavior is likely. In other words, less complex rule-governed behavior more often corresponds to simpler rules. In turn, more complex behavior adjusts to higher-level contingency arrangements. For the listener to adjust or respond according to a specified rule, his or her optimal performance should ultimately correspond to the complexity of the verbal stimuli controlling his or her behavior. A concept similar to maximizing may help clarify this point. Provided two or more rules, an individual may follow the rule with higher probability of reinforcement. However, increased behavioral complexity may occur even in those cases characterized by changes solely in response function, but in which response topography remains the same. Therefore, in analyzing behavioral complexity, one should keep in mind the interdependence between the form of stimuli and response *function*. This is because the probability of the listener following a rule would ultimately depend on the context within which the rule is provided, the listener's history with this context, or the listener's history with other similar rules. Furthermore, the listener's history of rule following may explain disparities in behavior among recipients of similar rules in comparable contexts.

Moral Rules Given by Others versus Self-Generated Rules

In cases of rules provided by others, the speaker (other than the listener) specifies, implicitly or explicitly, the criterion for the listener's behavior. In cases of self-provided rules (or self-instructions), the speaker and the listener are the same individual. Self-provided rules can be taught by others, self-generated, or abstracted by the subject from learning experiences. In the first case, although the moral rule is self-provided, it does not originate in the behavior of the subject (e.g., as a result of direct-acting contingencies in problem solving). Instead, the moral rules originate in the behavior of others. Rules taught by others are often learned via imitation

processes, including immediate, delayed and pervasive or generalized imitation (Gewirtz & Peláez-Nogueras, 1991; Peláez-Nogueras & Gewirtz, 1995). Self-generated rules appear to be derived or abstracted from other taught relations (i.e., through transitivity, combinatorial entailment or other processes).

In order to emit rule-corresponding behavior, the listener must acquire a receptive understanding of the contingencies described in the rule and be able to express the rule. When an individual can state or describe to others the orderliness of the environmental relations (the contingencies), we assume he or she "knows" the rule. This self-generated moral rule appears to develop at a later phase of language development, when the individual can verbally describe social interactions, derive the operating contingencies, and transform its functions to other relations.

When rules are provided by others, the speaker specifies the criterion for the listener's behavior, expecting the listener to adjust, conform, or respond according to rule descriptions (e.g., as in the mand). When rules are self-provided, whether taught by others or self-generated (derived), the individual's ability to verbalize the rule seems to interfere with his or her subsequent level of correct responding

Self-generated moral rules can derive from other existing moral rules through generalization, equivalence classes, transitivity, naming, or relational frames. Rules derived through these processes have the potential to be as effective in controlling behavior as verbal rules that have been directly shaped or learned through imitation. However, the processes accounting for the derivation of new rules awaits empirical validation. Thus far, researchers studying moral development have only shown that it is possible to teach young children how to instruct themselves to follow rules and to resist temptations (e.g., Mischel & Patterson, 1976).

The transmission of these "non-present complex contingent relations" can be achieved only through language, through processes such as derived stimulus relations, and transfer of learning. In this way, individuals may behave morally from the outset in accordance with rules that they have never before encountered. In transfer of function, novel classes or rearrangements of the components of an earlier moral rule come effectively to control a behavior, even when the individual has had no previous experience with the rule (Malott, 1989). Regardless of which of these processes is responsible for the emergence of the new self-derived rule and the transfer of its function, the important common feature among these processes is the notion that *linguistic knowledge* is instrumental in substituting and transforming the verbal contingencies into functional acts.

Developmental Sequences in Moral Patterns

Originally, in early moral development, the child's patterns of "moral" or prosocial behaviors appear to be shaped and maintained by avoidance of aversive social consequences (e.g., disapproval, removal of privileges, rejection, reprimand) as well as aversive nonsocial consequences (e.g., removal of material privileges or activities). This would be

equivalent to the punishment and obedience orientation, or the first stage within Kohlberg's preconventional morality level (Kohlberg, 1969).

At a later point in development, moral behaviors are established through prosocial experiences such as sharing, caring, helping, and cooperation. These responses are shaped and maintained by direct positive social reinforcement (e.g., approval, acceptance, praise, affection), and appear to be equivalent to those required in the "good boy" or "bad boy" orientation in the third stage proposed by Kohlberg (the conventional morality level).

The moral behavior of young children with limited verbal skills is originally established by direct shaping, modeling, and imitation processes including immediate, delayed and pervasive or generalized imitation (Peláez-Nogueras & Gewirtz, 1995). As the child's verbal behavioral repertoire becomes more complex, and his or her receptive and expressive language increases, the child's moral actions become more under the control of verbal rules given by adults. These rules describe indirect acting contingencies (or contingencies with delayed outcomes), relative to the control of direct reinforcing or punishing contingencies imposed by the speaker (e.g., when parents begin to lose control over their child's behavior because they are no longer available or present to deliver immediate consequences). Children are verbal before their verbalizations control their behavior, thus addressing the difference between stating a rule and following a rule is important.

First, the child's moral actions come under the control of rules given to him/her. *Second*, with an increase in expressive language repertoire, self-generated rules are derived or abstracted from other learned or derived rules (i.e., through transitivity, combinatorial entailment or other processes). It is my assumption that only after having acquired a receptive understanding of a rule and expressed an explicit rule, can the moral child emit *rule-corresponding* moral behavior. *Third*, when a child can describe to others the orderliness of the environmental relations and specify the ultimate contingencies, we may assume that he or she "knows" the rule. *Fourth*, in later adolescent development, capable of abstract thinking, moral rules come to control behavior for long periods, in different contexts, and without the individual directly experiencing the consequences of their actions.

In our analysis, we must distinguish between a child *complying* with a moral rule and a child *conforming* to a moral rule. Complying with rules means to follow and behave according to the rules within one's society or culture, or which form part of the child's repertoire of rules. Conforming to rules, on the other hand, means to behave consistently with the rule in the environment, but not being able to state or verbalize the rule (Verplanck, 1992).

As the child's verbal-behavioral repertoire increases, and repertoires of social referencing and perspective taking develop, he or she is able to discriminate between the immediate and the delayed, remote or long-term consequences of moral or immoral actions. The child begins to understand the feelings and emotions of others (as in the case of empathy). This is because he or she has learned to verbalize and predict the consequences of a given action; that is, *which* consequences pre-

vail in a particular setting, and *how*, *when* and by *whom* these aversive or reinforcing consequences would be applied, and has also learned perspective taking.

Empathy

Many mainstream developmental psychologists have treated empathy as an "intersubjective" experience (Thompson, 1994). Although empathy entails the affective, the cognitive, and the behavioral components, theorists vary in the emphasis they place on each. For example, the ethologists see empathy as a primitive experience of *affective* sharing that has its early origins in the playful exchanges shared by mother and offspring. The cognitivists conceive of empathy as revealing a child's capacity to interpret and respond to another's emotional expressions, as in social referencing (Gewirtz & Peláez-Nogueras, 1992; Thomson, 1994). It develops with the child's cognitive grasp of another's emotional perspective, and emerges much later in development when the child has already developed social referencing and role-taking skills.

From a behavior-analytic perspective, empathy may work as a setting event or establishing operation. It refers to a vicarious emotional response signaled by another's emotional cue and responses. Therefore, showing altruistic behavior, self-sacrifice behavior, or helping in the presence of another person's distress, often times is facilitated by empathy working as an establishing operation. For example, feeling empathy, which works like feeling hungry or feeling thirst, or feeling emotionally aroused, may enhance the value of reinforcers associated with behaving. Empathy is not only manifested in sympathetic behavior, but also may be manifested with behaviors denoting anger or behaviors denoting guilt in the presence of a distressed individual who is responding emotionally. In other words, empathy may increase the probabilities of altruistic behavior, but, on other occasions, may induce aggression. For example, it may appear as aggression towards an attacker, as when someone fights to defend another's rights. It may also appear as aggressive behavior towards a victim--as in the case of euthanasia. At other times, empathy may trigger self-deprecation or withdrawal from a given situation, as when a candidate for food in a prison or concentration camp may withdraw his opportunity to eat for the sake of another hungry or ill person.

The development of empathy is multifaceted and relates to the interpretation of the emotional signals of others (i.e., social referencing). It develops with the increasing understanding, through learning experiences, that the emotional cues of others are relevant and contextually determined. Due to the difficulty in distinguishing empathy from other emotions, its role as a motivational or setting factor has been neglected in behavior analysis. It is crucial that empathy is understood in terms of its emotional aspect and not become equivalent to the prosocial or moral responses it is presumed to motivate, that is, to serve as a setting factor. For example, pressing the lever faster is not equivalent or the same as the rat being hungry.

Empathy may have various functions for human motivation and behavior: it can provide the basis for care giving of off-spring, marital fidelity, group cohesion, and moral compliance as well as for helping, sharing, cooperative, and altruistic behavior. Each of these functions, as an establishing operation, has different biological inclusive fitness. The capacity for empathy may be a deeply rooted, biologically based, feature of human motivation (Hoffman, 1981a, 1981b). Even so, a biologically based empathic capacity might be specific to particular individuals, in particular contexts of specific relationships, in different cultures, and at different stages of our lives. The role of empathy, as an establishing operation, could derive from aversive controlling histories. In this way, empathy is both biologically and contextually determined.

CONCLUSION

Morality results from a system of rule-governed behavior, which conforms to the moral practices and values of the family and the culture. The effectiveness of moral rules in controlling moral behavior is based on how explicitly the rule describes the moral situation, the efficacy of contingencies and contextual variables involved, and how such a rule relates to other currently controlling moral rules. For future behavior-analytic research in moral development, it is important to focus on the different types of rules, the contextual motivational variables such as empathy, and the various learning processes mentioned here.

We have started a program of research focusing on investigating the taxonomy of rules from a developmental perspective. Its purpose is to determine their hierarchical organization in learning. Our assumption is that the taxonomy of rules offered here, ranging from explicit to implicit, lower level to higher level of complexity, accurate to inaccurate, imposed by others to self-generated, can organize moral behavior by increased level of difficulty, compliance, and adjustment to the contingencies they describe.

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