

**THE REFERENTIAL NATURE OF RULES AND INSTRUCTIONS:
A RESPONSE TO INSTRUCTIONS, RULES, AND ABSTRACTION:
A MISCONSTRUED RELATION BY EMILIO RIBES-IÑESTA**

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Rules have been defined, within behavior analysis and without, as stimuli that “refer to” or “specify” contingencies or environmental events (e.g., “Hold the base firmly and turn the top to the right,” Skinner, 1969, p. 139). Ribes-Iñesta¹ (2000) suggests that the approach to rules and rule-governed behavior that developed from Skinner’s (1969) work leads to conceptual confusion. Specifically, he proposes that confusion results from the lack of a distinction between rules as stimuli and rules as outcomes. Although such a distinction may be necessary, Ribes-Iñesta does not address the referential or specifying nature of rules and, consequently, fails to provide useful definitions of rules as either verbal stimuli or responses.

In the first part of this response, we will outline the approach to rules and instructions provided by Ribes-Iñesta’s article. In the latter half, we will point out the limitations of the definitions of rules and instructions that Ribes-Iñesta proposes and, more specifically, how the inadequate definitions of rules and instructions result from the failure to address the referential nature of rules as verbal stimuli or responses. Finally, we suggest that a consideration of Ribes-Iñesta’s article draws attention to reference as a critical property of rules and rule-governed behavior.

Ribes-Iñesta’s Proposed Redefinition of Rules and Instructions

Ribes-Iñesta suggests that the approach to rules suggested by Skinner is not clear. More specifically, he points out that a distinction must be made between “rules” that are “constructed as verbal stimuli that describe consequences” and “rules” as “instructions to be followed to cope with a set of already specified

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¹ All references to Ribes-Iñesta in this essay are to his *Instructions, rules and abstraction: A misconstrued relation* (2000) article, hereafter cited in the text by page number.

contingencies" (p. 44). The former "rules" are the "outcome" of understanding, "which entails being a listener and an observer of one's own effective behavior" (p. 44) such as "When I walk in the rain, I get wet." In the latter case, however, "effective performance is expected to follow from the cueing and restrictions provided by the demonstration and/or instructions" (p. 44) as in "Do not walk in the rain because you will get wet." We agree with Ribes-Iñesta that in each of these situations, the events referred to as rules are functionally different. In the first situation, the "rule" is a response, in that the form of the "rule" is controlled by exposure to environmental ("match to sample type") contingencies ("When I walk in the rain I get wet" is a speaker's response to directly experienced environmental contingencies). In the second situation, the "rule" is a stimulus, in that it controls the range of behavior emitted in the situation ("Do not walk in the rain because you will get wet" aims to restrict the behavior of a listener). In other words, Ribes-Iñesta argues that contingency specifying stimuli may function as both rules (i.e., responses to environmental contingencies) and instructions (i.e., stimuli that limit another's behavior), and we must make a clear distinction between these two functional categories.

In order to address the foregoing concerns, Ribes-Iñesta suggests that we:

reserve the term "rule" for verbal descriptions of previously experienced contingencies, and the term "instruction" for those cases of rule-following behavior in which the individual has not experienced the contingencies that gave rise to the rule in the first place. (p. 49)

This distinction avoids the confusion that occurs when rules are used to refer both to stimuli presented to a subject and to responses established by training. However, although this definition addresses one particular aspect of the current approach to rule governance, we contend that Ribes-Iñesta underestimates the problems that arise when rules and instructions are used as functional terms.

Ribes-Iñesta's Approach to Rules and Rule-Following

According to Ribes-Iñesta (p. 45-46), "at least three requirements must be satisfied in order to identify some given behavior as rule-following." These are:

- 1) the specific physical stimulus properties that can acquire a discriminative function should vary within the particular contingency situation
- 2) the putative rule-governed behavior should be the result of abstract stimulus control that emerges from an interaction with matching-to-sample kind of contingencies
- 3) verbal descriptions of functional contingencies may be an additional outcome of abstraction themselves

Ribes-Iñesta proposes that the responses referred to in #2 (above) constitute the abstraction of relational functional properties (e.g., consistent responding according to an "oddity" criterion, p. 53). At this point, Ribes-Iñesta suggests that

such a performance is an example of rule-following and that the verbal descriptions in #3 (above) are the result of “rule description.” As an aside, if we describe the behavior in #2 (above) as rule-following, it seems as though rule-following may occur without rule-description (i.e., #3 above) and, thus, rule-following may occur in the absence of a verbalized rule (e.g., when a nonverbal organism demonstrates identity matching).

The critical oversight in Ribes-Iñesta’s description of rule-description or construction is that he does not address how the verbal descriptions in #3 (above) *refer* or relate functionally to the performances suggested in #2 (above). This oversight leads to several deficiencies in the above account of rule-following. First, exposure to contingencies alone is not sufficient to produce descriptions of those contingencies because, as noted by Ribes-Iñesta (p. 46, 51), the contingencies that give rise to verbal responses that “refer” to environmental events are additional to those environmental events (i.e., people often do not verbalize the contingencies that control their behavior). Second, the contingencies that give rise to verbal responses that “refer” to environmental events may not simply be additional to those environmental events but may, in fact, control such verbal responses in the absence of those environmental events. The verbal response “if you are good, when you die you will go to heaven” emphasizes how far removed verbal behavior may be from environmental events and still describe contingencies. Third, verbal contingencies may lead to descriptions of contingencies that are different to those environmental events to which a subject is exposed. For example, subjects that respond quickly when exposed to fixed-interval schedules without instructions describe the contingencies as ratio-based (Leander, Lippman, & Meyer, 1968; Lowe, 1979).

Ribes-Iñesta does not outline exactly what additional contingencies may give rise to verbal descriptions that refer to contingencies. Rather, he suggests that “such descriptions are related to theoretical notions such as the abstract tact (Skinner, 1957), contingency substitutional behavior (Ribes, 1991), and contingency specifying stimuli (Schlinger & Blakely, 1987)” (p. 51). Therefore, on the one hand, Ribes-Iñesta suggests that effective behavior and rule construction “are under the control of different variables and have different functions” (p. 46), but on the other, he does not make explicit exactly what these “different variables” are.

Ribes-Iñesta’s Approach to Instructions

Ribes-Iñesta’s description of instructions is unclear. Ribes-Iñesta suggests that “Instructions selectively expose the individual to a partial set of contingencies, relative to those that gave rise to the instructions in the first place” (p. 50). He explains this effect thus: “Instructing can be conceived as a special case of prompting-shaping in which the relevant, expected behavior is initially prompted by the instruction” (p. 49). Prompts are defined as “supplementary stimuli that increase the likelihood of already existing behavior” (Skinner, 1957, p. 52). Instructions can, therefore, be described as stimuli that restrict a range of

responding and make a particular behavior more likely. Such a definition is not sufficient insofar as it does not distinguish between rules and other stimuli that have similar effects (e.g., discriminative stimuli, conditional stimuli). Finally, although Ribes-Iñesta does suggest possible effects of instructions, he does not suggest a history of reinforcement that would give rise to such performances and thus his treatment of instructions falls short of a complete functional-analytic definition.

In short therefore, Ribes-Iñesta's approach to instructions fails to address the referential nature of verbal stimuli. At no point does Ribes-Iñesta seek to outline the history of reinforcement that is necessary for verbal stimuli to control subsequent nonverbal behavior. In order for instructions to control nonverbal responding they must "refer" to nonverbal contingencies. That is, if one does not know what an instruction refers to, one cannot follow it (e.g., if an instruction is in a different language). Ribes-Iñesta does not address this vital aspect of instructional control from a functional analytic perspective. Until we have a clear functional analytic treatment of terms such as *reference*, *specify*, *prompt*, and so on, any definition of rules and instructions will be, at best, incomplete and, at worst, opaque and confusing.

Conclusion

Ribes-Iñesta distinguishes between rules as verbal stimuli and verbal responses. This is an important distinction in that we, as behavior analysts, may have heretofore described and defined functionally dissimilar events as rules. It is clear, however, that Ribes-Iñesta does not provide definitions of rules or instructions that address the referential nature of rules as either verbal stimuli or verbal responses. More specifically, Ribes-Iñesta does not propose a particular history of reinforcement that would lead to either the production of a verbal response that *refers* to a nonverbal event or to the control of nonverbal behavior established by a verbal stimulus that *refers* to a nonverbal event. In order to develop a coherent approach to rules, we must endeavor to isolate the variables that generate referential relations themselves. Indeed, several researchers have taken advantage of recent work on derived relational responding in proposing functional-analytic definitions of verbal behavior that also adequately address the concept of *reference* in functional analytic terms (Barnes-Holmes, Barnes-Holmes, & Cullinan, 2000; Chase & Danforth, 1991; Hayes & Hayes, 1989; Horne & Lowe, 1996; Sidman, 1994; Skinner, 1986). These approaches to verbal behavior may provide the first steps to a functional-analytic approach to rules and rule-governed behavior that also addresses the important referential nature of such stimuli and responses.

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