Interpreting the Record in Context

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Moxley has provided a detailed and closely referenced paper that will be of interest to scholars concerned with the finest details of Skinner's conceptual development and analysis. As an interpretive paper, it will doubtless give rise to disagreement over some of those details as well as some of its broad assertions. My comments will focus mainly on two assertions: In one case, I believe the assertion is overstated, and the other case is one that I would argue differently from Moxley.

The first assertion, which I believe is overstated, is that Skinner's early work subscribed to a strict determinism of the type attributed to Laplace. Laplace's treatment of determinism and probability is not alluded to in Skinner's work as an influence on his intellectual development, and Laplace does not feature in any index of Skinner's that I am able to find. Although it may have been a popular assumption of physicists until relatively recently, the record does not directly show that Laplace's determinism influenced Skinner's notion of that concept. It is worth noting that *determinism* features on only a very few occasions in indexes of Skinner's work, and where that concept is alluded to, I find it embedded not within discussions of determinism versus random variation but in the context of Skinner's dogged opposition to constructs such as *volition*, *free will*, *spontaneity*, *initiating agent*, *self-as-agent*, *mind-as-causal*, *consciousness*, and so on, as if they could account for (explain) behavior.

Skinner's early treatment of "The Concept of the Reflex in the Description of Behavior" (1931) is as good an

example of this context as any that can be found in later works. His early assertion that in scientific investigations of the reflex, "Movement, far from being the objective manifestation of the activity of soul, had become an organic process subject to experimental investigation" (*Cumulative Record*, 1972, p. 436) is echoed in later works in relation to operant behavior and refers to the process whereby, as scientific analysis advances, hypothetical antecedent events of the type given above necessarily recede. In general, "Behavior has that kind of complexity or intricacy which discourages simple description and in which magical explanatory concepts flourish abundantly" (Skinner, 1938, p. 3), and specifically in relation to human operant behavior, "The conception of a free, responsible individual is embedded in our language and pervades our practices, codes, and beliefs. . . . A scientific formulation is new and strange" (Skinner, 1953, p. 10).

"Current Trends in Experimental Psychology" (Skinner, 1947) contrasts "the individual as the locus of a system of variables" (*Cumulative Record*, 1972, p. 308) with "the traditional conception of man as a free and responsible agent" (p. 312). It is true that this paper contains a forceful statement on the issue of determinism, but that statement still belongs within a context of highlighting traditional interpretive practices in contrast to scientifically driven interpretations: "To have a science of psychology at all, we must adopt the fundamental postulate that human behavior is a lawful datum, that it is undisturbed by the capricious acts of any free agent—in other words that it is completely determined" (p. 299).

When determinism is briefly men-

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tioned in *About Behaviourism* (Skinner, 1974), it again appears as counterpoint to prescientific assumptions about behavior: "The apparent lack of an immediate cause in operant behaviour has led to the invention of an initiating agent" (p. 53), the tendency "to believe that the will is free and that the person is free to choose. The issue is determinism. The spontaneous generation of behavior has reached the same stage as the spontaneous generation of maggots and micro-organisms in Pasteur's day" (p. 54). This contrast between two antithetical interpretive frameworks continues even to Skinner's final paper, in which he asserts that psychology has "been occupied for so long by that extraordinarily intriguing theory of an internal originating mind or self" (1990, p. 1209) that cognitive science "is the creation science of psychology, as it struggles to maintain the position of a mind or self" (p. 1209) and that "what they [cognitive psychologists] hoped was dead was the appeal to selection by consequences in the explanation of behavior. The mind or, failing that, the brain must be restored to its rightful position" (p. 1210).

In direct response to an assertion that Skinner was a strict determinist (in the sense accorded to Laplace) at some time in his career, I would argue that this is to overstate the case. The concept of determinism itself is never thoroughly explored in Skinner's texts. Rather, it is invoked as a guiding principle in the ongoing effort to free scientific accounts of behavior from diversionary and prescientific explanatory constructs. Interestingly, as I read Laplace, whose *Probability and Its Principles* is partially reproduced in Madden (1960, pp. 250–255), I note that he too was concerned about the practice of attributing causation to fictitious and capricious entities:

Present events are connected with preceding ones by a tie based upon the evident principle that a thing cannot occur without a cause which produces it. . . . The contrary principle is an illusion of the mind, which, losing sight of the

evasive reasons of the choice of the will in indifferent things, believes that choice is determined of itself and without motives. (in Madden, 1960, p. 250)

It may turn out that scholars have similarly overlooked context in interpreting Laplace's pronouncements on determinism.

Skinner produced a literature so ample and wide-ranging that a careful critic may well find incompatible statements. An example is a seemingly curious assertion Skinner made about science: "Science is first of all a set of attitudes" (1953, p. 12). Taken out of context, a critic might argue that, despite his assertions to the contrary, Skinner himself subscribed to concepts that are internal, preexistent to, and generative of behavior. Of course, a behavior analyst would have little difficulty translating this statement into more compatible terminology, but that would be accomplished as a result of intimate contact with the larger body of Skinner's work; that is, with the larger context in which the discrete statement is embedded.

Moxley argues that some of Skinner's critics may have been confused by a perceived shift from strict determinism to selection as a causal mode. This is a case I would interpret differently. I would argue that it is not so much Skinner who is difficult on this issue, but that the issue itself poses intellectual problems to scientists whose guiding framework continues to be an input-organism-output, or S-O-R, model. Behavior analysis stands apart from most other branches of psychology in its eschewal of this mechanistic framework. Although selection on variation in the realm of biology is roundly accepted by contemporary biologists and by the wider intellectual community, the possibility of interpreting human behavior via this same causal mode generates discomfort at the least and outright hostility at the extreme. Mechanistic thinkers simply cannot conceive of behavioral repertoires as being selected by consequences. Selection as a causal mode will continue to be a dif-

ficult issue until such times as the principles and practices of behavior analysis convince a wider intellectual community of its interpretive power in conjunction with its pragmatic value.

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