## In Response

## Analysis of Complex Human Behavior: A Reply to Staats

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Although Staats (1993a, 1993b, 1994a, 1994b) has advanced a new philosophical position called paradigmatic or psychological behaviorism as an epistemological basis for behavior analysis, his latest exposition (1994a) continues to avoid a question central to the validity of his argument: Has scientific investigation of radical behaviorism produced experimental failure (Lakatos, 1970) sufficient to justify the adoption of a new philosophical position such as paradigmatic behaviorism? In other words, what does paradigmatic behaviorism add to the study of behavior that is not already provided by radical behaviorism?

Staats (1993b) argues that paradigmatic behaviorism should be adopted by behavior analysts because its multiple levels of analysis contain a language of personality theory. As such, paradigmatic behaviorism establishes "a bridge to traditional psychology . . . being cut off from psychology makes little scientific or professional sense" (1993b, p. 67). This theme is also evident in Staats' most recent treatise on the subject (1994a): "Unlike other behaviorisms, paradigmatic behaviorism abstracts what is involved, and establishes the basis for a different relationship of behaviorism and psychology, along with a new program for con-ducting interrelated study—called 'be-haviorizing psychology' " (p. 96). Therefore, according to Staats, radical

Correspondence and requests for reprints should be addressed to Joseph J. Plaud, Department of Psychology, University of North Dakota, PO. Box 8380, Grand Forks, North Dakota 58202-8380 (E-mail: plaud@badlands.nodak.edu). behaviorism is an isolationist and noncomprehensive approach to human behavior: "Our field will move on rapidly when it is finally accepted that Skinner's contribution was great, but it was an early development" (1993b, p. 67).

Staats (1993b, 1994b) has taken critiques of paradigmatic behaviorism (Plaud, 1992, 1993, 1994) to mean, among other things, that behavior analysts see no difference between paradigmatic behaviorism and radical behaviorism. But the purpose of these critiques was to make it clear that paradigmatic behaviorism had nothing new to offer behavior analysts. The point is this: Paradigmatic behaviorism is not an overriding philosophy of science, and that in none of the domains (or levels) delineated by Staats is there any evidence that paradigmatic behaviorism has done a more credible job in describing, explaining, predicting, or controlling behavioral phenomena. More specifically, radical behaviorism does address such diverse topics as social behavior, cross-situational behavior (i.e., personality), child development, language and thought, psychological disorders, behavior modification and therapy, education, and organizational behavior management. As such, it is incorrect to conclude that paradigmatic behaviorism offers a more comprehensive behavior system.

Given the comprehensiveness of radical behaviorism, the legitimacy of Staats' argument appears to rest solidly on his exposition of basic behavioral repertoires. This is an area in which the two behaviorisms diverge. According

to paradigmatic behaviorism, for example, personality is composed of three systems: language-cognitive, emotional-motivational, and sensorymotor. Each of these systems is learned in increasing complexity, and constitute personality. Staats maintains that an "explanation of the individual's behavior *cannot* be obtained only by knowledge of the current situation and behavior principles" (1994a, p. 107, emphasis added). According to Staats, the addition of intervening variables, called basic behavioral repertoires, provides a more complete analysis of behavior. Thus, to the paradigmatic behaviorist, to understand why Johnny acts aggressively towards his classmates in gym class one must analyze the three basic behavioral repertoires that comprise his aggressive personality. To the radical behaviorist, however, the contingencies of reinforcement (and relevant biological data) are what must be analyzed; there is no need to postulate basic behavioral repertoires as intervening variables.

The theory of personality espoused by paradigmatic behaviorism looks rather Hullian in character, employing an intervening variable (the basic behavioral repertoire) that can be composed of several hierarchically organized repertoires, according to Staats. Indeed, Staats calls his approach a positivistic approach, much like the positivistic theory of behavior constructed by Hull, which relates chains of intervening variables. However, as Koch (1954) pointed out in a major critique of Hullian theory, there is no variable in behavioral data that corresponds to an inferred construct. Essentially this means that empirical methods cannot determine the parameters of the system; rather, guesswork by the theoretician is what leads to the construction of variables (such as basic behavioral repertoires) that covary along the psychological dimensions. It is noteworthy that Staats provides no empirical data or references to independent studies that could corroborate this major hypothesis of paradigmatic behaviorism.

The addition of basic behavioral repertoires, therefore, is a major difference between paradigmatic and radical behaviorism. Staats includes basic behavioral repertoires in his system to account for more traditional personality traits and constructs; this inclusion essentially means that intervening variables of increasing complexity are added into the three-term contingency. It appears, therefore, that Staats goes to a great length to incorporate mainstream psychological terminology and theory, and in so doing loses the essence of functional analysis.

In the final analysis, paradigmatic behaviorism does not seem to account for any area of psychological inquiry that has not already been analyzed comprehensively from a radical behavioral perspective. Given this lack of evidence of experimental failure, therefore, as well as the lack of empirical evidence for the validity of paradigmatic behaviorism, it is appropriate to conclude that behavior analysis should continue to be based upon the philosophical foundations of radical behaviorism.

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