Clinical Applications of Analogue Behavioral Observation: Dimensions of Psychometric Behavioral Evaluation

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Clinical assessment applications of analogue behavioral observation are discussed in the context of psychometric principles. Analogue behavioral observation involves the measurement of a client's overt behavior in a contrived situation that is analogous to situations that the client is likely to encounter in his or her natural environment. The goal of analogue behavioral observation is to derive valid estimates of the client's behavior in a current or future natural environment. Analogue behavioral observation instruments are often developed with insufficient attention to their psychometric properties, particularly content validity. Psychometric evaluative dimensions vary in their importance, as a function of the goals of the assessment. Although analogue behavioral observation instruments can be sensitive to change, their validity can erode over time and is affected by numerous sources of variance. Analogue behavioral observation assessment may be especially useful in detecting important functional relations in clinical assessment.

Analogue psychological assessment involves measurement in a contrived environment. The goal of this assessment strategy is to derive valid and cost-effective estimates of a client's behavior, thoughts and cognitive processes, emotions, and physiological functioning, and of interactions between the client and others, in the environment in which the client normally functions. Analogue psychological assessment is also used to help a clinician generate hypotheses about factors that maintain a client's behavior problems and factors that affect treatment outcome. Measures of behaviors and events derived in analogue assessment are presumed to be valid estimates of similar behaviors and events in the client's natural environment (Barley, 1991). Most psychological assessment methods, such as questionnaires, interviews, and psychophysiological laboratory assessment, are analogue, in that inferences about a client are derived in an environment different from the environment of primary interest.

This article and the Special Section in Psychological Assessment (2001, pp. 3-98) focus on a subset of applications of a particular type of analogue psychological assessment—clinical assessment applications of analogue behavioral observation. These articles address the use of analogue behavioral observation to aid clinicians' judgments about a client's behavior problems (e.g., their type, magnitude, frequency), to identify factors that affect the client's behavior problems, to formulate treatment strategies, and to evaluate treatment outcome.

There are several classes of analogue behavioral observation methods. These include role-plays, experimental functional analysis, enactment analogues, contrived situation tests, think-aloud procedures, family and marital interaction tasks, response generation tasks, and behavioral avoidance tests. Typologies of analogue behavioral observation methods have been discussed in Haynes (1978), Haynes and O'Brien (2000), McFall (1977), Nay (1986), Shapiro and Kratochwill (1988), and Torgrud and Holborn (1992). Within each class of analogue behavioral observation methods there are many instruments, which often differ in their elements, such as instructions to participants, stimuli presented to participants and their method of presentation, the use and behavior of confederates, and the response modes measured and units of measurement.

Analogue behavioral observation methods have several characteristics in common: (a) the measurement of a client's overt behavior (and sometimes the measurement of subjective, cognitive, and physiological events), (b) measurement in a contrived situation that is analogous to situations that the client is likely to encounter in his or her natural environment or measurement in situations that are likely to elicit client behaviors that help the clinician in forming judgments about the client (e.g., measurement of the client's response to potential future stressors), and (c) the use of contrived settings, instructions, and stimuli that increase the probability that clinically important behaviors and functional relations will occur.

An assessment method is a class of procedures for deriving data on the behavior of a client or clients (e.g., behavioral observation in the natural environment and self-report questionnaires are "methods" of assessment). An assessment instrument is a specific procedure for deriving data on the behavior of a client or clients on a specific assessment occasion (e.g., a specific behavioral avoidance test; a specific self-report depression questionnaire). A measure refers to a number that represents the variable being measured (e.g., the observed rate of behavior or a blood pressure reading during a measurement session). Measurement is the process of assigning a numerical value to a variable dimension (e.g., rate, duration, magnitude), so that relations of the numbers reflect relations among the measured variables (Haynes & O'Brien, 2000; Sederer & Dickey, 1996).