

The Emperor is Naked Again: Comments on Schlinger's Assessment of Psychological Theory

Robert E. Lana

Temple University

Periodically in the history of psychology the state of the field is examined to determine its progress since the last assessment was made (e.g., Koch, 1993; Skinner 1977; Spence 1956). On occasion, the conclusion is drawn that progress is either minimal or non-existent. Such a conclusion usually takes the form of questioning psychology's success in developing theoretical statements, or indeed statements in any context, that successfully allow for consistent prediction of the phenomenon in question. Just such an assessment has recently been offered by Schlinger (2004) in this journal.

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The article "Why Psychology Hasn't Kept Its Promises," draws several conclusions which I will comment on before making a suggestion as to why the field is in the state in which Schlinger (2004) correctly finds it. Schlinger's observations can be summarized as follows below.

1. Psychology suffers when its accomplishments are compared to the natural sciences (physics, chemistry, biology). Comment: There is no doubt that the conclusions drawn by the natural sciences are more consistently correct than those drawn by most of the sub-disciplines of psychology. The question of why this is so is the principal focus of Schlinger's article.
2. Modern psychology's accomplishments are limited because psychology emphasizes mind or cognition. The current euphemisms for mind and cognition are "information processing" or explanations couched in "neuralesé." Comment: All psychological phenomena must refer either to behavior which is easily indicated, or to a neurological process which must directly

correspond to the phenomenon in question. There is no other alternative. Defining a psychological phenomenon in terms of behavior has been successfully accomplished throughout the modern history of the field. However, prediction directly from neurological referents has proved to be elusive. For a neurological process to be considered the cause of a psychological phenomenon, one must be able either to observe or to effect the stimulation of the neural substratum which precedes the verbalization (or other indication) of a specific memory. This is not now possible. Schlinger is correct in saying that cognitive explanations are metaphoric rather than directly predictive in the manner indicated.

3. Psychology depends upon hypothesis testing within a hypothetico–deductive system for its explanation. The natural sciences systematically manipulate precisely defined and measured independent variables. Comment: The natural sciences also utilize the hypothetico–deductive method, although the preliminary work done that allowed physicists et al. to accomplish this was considerably more successful than that of psychologists. Clearly, Clark Hull (1943) was the psychologist who seriously attempted to manipulate precisely defined independent variables by the use of operational definitions of all the terms in his system. Virtually no current psychologist attempts to construct a thoroughgoing hypothetico–deductive system in the manner of Hull. However, Schlinger is correct in his assessment that part of the legacy remains. Psychologists do test hypotheses which are unconnected to any large body of related theoretical statements. I have called this the quasi-axiomatic approach (Lana, 2002).
4. Psychology is an assortment of sub-disciplines that are not unified by any common principles or basic units of analysis. That is, there is no universally defined subject matter. Comment: From the 1930's through the 1950's there was still hope among many psychologists that single, all-encompassing theories of human action might be written that would account for at least the most important psychological processes. Certainly this was the hope of Freud, Hull, Lewin, and others. The truncating and sometimes failure of these and other systems ushered in the era of the highly constricted theory or the elimination of theory altogether.
5. The unobservability of mind or any of its euphemisms means that it cannot be studied by scientific techniques. Comment: Science requires that that which is being examined be both observable and conclusions drawn about it be susceptible to rational, i.e., logically deductive rules of operation. Skinner's prime objection to Hull's approach was that many of Hull's terms, although operationally defined, referred to unobserved or unobservable entities and hence had no explanatory value.
6. In psychology, dependent variables are not vigorously controlled, hence multiple subjects are used in each experimental condition. The vigorous

control of the single subject is more desirable. Comment: When Hull (1943) attempted to construct a vigorous hypothetico-deductive system of response acquisition in animals, his effort immediately fell short of what the physicists had accomplished with the same structure when he used multiple animals to test an empirical derivative of his postulates. Speed of running a straight alley was generally the dependent variable that Hull examined. Since the various rats he used ran the alley with different speeds without training, the application of the independent variables required several animals to run under the same conditions in order to average this difference in their running abilities when assessing the dependent variable. This was one of the factors to which Skinner objected in rejecting Hull's approach. Skinner made the point, with which Schlinger agrees, that the single organism had to be controlled in all relevant aspects when introduced to experimental conditions.

Schlinger is clearly sympathetic to the Skinnerian program as a way to solve the disappointment with psychology's explanatory efforts. Skinnerians have long advocated experimentation on the highly controlled single subject in order to establish strong correlations between independent variables and specific organism responses. This emphasis has produced a series of generalizations concerning animal behavior that have proved to be consistent and unchanging over a number of environmental circumstances. Schlinger's point is further supported by the fact that these solidly established correlations between environment and response have allowed for the axiomatization of Skinner's generalities (Lana, 2002) which thus places them within a hypothetico-deductive system.

The next problem is centered upon the issue of the application of Skinner's system to the many problems set by psychologists. As far reaching as behavioral analysis has been, it has not as yet provided answers to many of psychology's thornier problems. Although a reasonable approach to linking environmental conditions to behavior, the system is not designed to directly examine the effects on behavior of internal organ activity. Skinner relegated that process to the behavioral repertoire which he left essentially unexplored.

Schlinger is sanguine about psychology's explanatory future so long as psychologists concentrate on the exploration of the relationship between measurable environmental and response variables in the manner of the more successful natural sciences. However, suppose we conclude that which psychologists would rather not conclude — there are limits to what we can know about our own nature. When we turn our attention to the more complicated human responses such as those studied by personality and social psychologists, the possibility of establishing the solid empirical base that

Schlinger rightfully desires may be impossible. The psychologist as observer participates in many of the very processes she seeks to explain and that participation can confound method and epistemology. We must think about the nature of thinking. We are social beings attempting to explain the social context in which we live. That is, participation in the behavior of thinking requires us to use the very activities that we are attempting to explain as a condition of the explanation. Understanding the critical aspects of a social group with which one shares a perception of the very nature of social reality may be a system turning in upon itself and, therefore, displaying its limitations. To understand social processes one must enter into the discourse and therefore the social content of a particular group because universal generality is not possible regarding the understanding of social issues, largely because they frequently change. These conditions prevent us from establishing the firm empirical evidence Schlinger asks for in his analysis. For example, many social theorists have concluded that social context is at the core of understanding social activity. With this emphasis, the history of a social group provides the primary material which allows for comprehension of both the individual and the group's collective behavior (Lana, 1994, 1995). The methodologies needed to comprehend this historical context are fundamentally hermeneutic in nature. Rhetoric and interpretative group history become more crucial to understanding than experimental method. The risk in favoring these methods over the experimental is that one loses the deductive certainty perpetuated by experimental method. An historically oriented interpretation of group history is, at best, only one among many possible rhetorically sound explanations. However, the historically oriented interpretation may be the most effective way of explaining social activity. For example, many social psychologists have generally rejected behavior analysis' experimental approach to explaining social activity because behavior analysis has been focused upon the process of acquisition of behavior rather than on the internal verbal referents of an acquired content. If cognitivists and behaviorists divided the study of social activity into the study of its content and the study of the acquisition of that content, they would be epistemologically supplementary to one another.

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