

What Is the Role of Behavioral Systems Analytic Approach in the Advancement of a Science of Human Behavior and Its Contribution to the Vitality of OBM?

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Having been asked to respond to the above question, I must begin by recognizing that at least two questions are posed. However, after some consideration, I think that the answers to each question are quite similar. The first question concerns the role of behavioral systems analysis in the basic science of human behavior, and the second concerns the contribution of behavioral systems analysis to the vitality of OBM.

Turning to the issue of what behavioral systems analysis can contribute to the science of human behavior let me begin by specifying what I consider our basic science to be. The science of behavior analysis is the study of the behavior of the individual organism in time. Skinner's unique contribution, and the basis for our field of study, is the utilization of a natural science approach to the analysis of the ongoing behavior of the individual organism.

It is the study of the individual organism and the viewing of that organism's behavior as continuous that distinguishes us most from the rest of psychology as well. Further, this approach places us more in line with the other natural sciences than in the rest of psychology in terms of our approach to scientific inquiry.

While I believe that the study of the ongoing behavior of the individual organism is the most critical feature of behavior analysis, that is not necessarily the case for most behaviorists. Many behaviorists identify themselves primarily as monists, not dualists, so that their focus is on behavior rather than the mental apparatus that dualists study. For me, however, mentalism poses no more problems for behavior analysis than did the "aether" for physics. The "Aether" never existed either. It was a fundamental concept of physics from the time of Newton until the time of Einstein, but it did not delay the development of either experimental or applied physics.

Mental agents are a nuisance and to be avoided where possible, the fewer variables, the better, the more visible and measurable, the better. But our subject matter is at least as different from the subject matter of traditional behaviorists in psychology as it is from Gordon Allport's Individual Psychology. Our disagreement with Allport is on our experimental natural science approach. Our difference with the behaviorists of traditional psychology is the fundamental subject matter, itself.

When the behavior analyst, experimentalist, theoretician, or practitioner, considers behavior he does so in the context of environment. The controlling relationships between behavior and environment are ongoing and often reciprocal. Behavior changes environment. Environment changes behavior. This reciprocal controlling relationship removes us from simple linear concepts of cause and effect. It forces us to employ the interactive theories that characterize all of contemporary quantum theory, though our theories often are not clear or well articulated in this regard. Skinner's comment about the behavior most subject to change in an experiment is that of the experimenter is a good illustration of his recognition of the importance of this point, yet his theory never gets around to satisfactorily accounting for it.

The basic subject matter, then, is that of the organism interacting with its environment in a mutually controlling manner. We have classified the environmental component of that manner into two categories, reinforcing and discriminative stimuli.

Historically, one aspect of that environment, the reinforcing stimulus has come to have such importance that some behavior analysts define themselves as reinforcement theorists. This aspect of our science, while both important and as well researched as any, is often overplayed in application, as well. It has sometimes become the defining feature of our work, distracting us from other critical aspects of the organism interacting with the world.

It is in the area of the discriminative stimulus that I see behavioral systems analysis making a contribution to the science of behavior analysis. Variations in the stimulus often result in changes in behavior. Behavior often results in variations in the stimulus. One person's behavior is stimulus for another's.

In behavioral systems analysis, the focus is on certain properties of the stimulus. First, systems are typically extraordinarily complex stimuli in terms of both their structure and their controlling relationships.

When thought about in relation to behavior, it is a systemic relational pattern of stimuli that is of interest. A behavioral system works in some ways like a spider web. Disturbance in one place causes a ripple reaction throughout the web, thus affecting the behavior of the spider. Energy or action within the web results in behavior by the spider, sometimes including changing the web, itself. Systems, of which cultures are a subset, work in a similar manner. Behavioral systems analysis focuses on these complex patterns, but seeks to understand them by extricating their essential behavior controlling features as well as by identifying the critical aspects of the system involved in the controlling relation. Behavioral systems analysts also observe how action in one part of the system changes things elsewhere in the system.

It is these systemic features of stimuli that might benefit from more experimental or theoretical analysis. The structure of the stimulus, the way in which that structure comes to exert such control over behavior, and consequent changes in the systemic structure, itself, deserves more analysis not only at the systems intervention level, but in terms of more basic and presumably underlying features.

Another feature of behavioral systems is the emergent properties of systems as stimulus. By emergent, I am talking about something in which the whole is greater than the sum of its parts. Emergence is not unique to systems; it is demonstrable everywhere in our world. When a proton and an electron combine to form an atom, we see two elementary particles form something emergent. An atom can do things, serve functions that are not possible for its component parts, protons and neutrons, even when they are together, but not in atomic form. In the same way, structured systems have emergent properties that independent systems elements do not. This emergent aspect of systems is something that could be usefully explored in a more basic environment.

What distinguishes behavioral systems analysts from other behavior analysts, then, is their interest in the discriminative properties of the systems stimulus. I believe that both applied and basic work on the behavioral implications of various stimulus structures would be of benefit.

Some recent work in which I have been involved has been based on systems concepts. These concepts are based in behavior analysis but do not focus specifically on the reinforcing aspect of the relationship.

Over the past several years, I have been volunteering with the MBA program at the College of William and Mary. The dean and faculty of the college have been working on a total restructuring of the MBA curriculum. As a part of that restructuring, the faculty has recognized the importance of the impact that the MBA graduate has on the business environment and, in turn, the way in which that environment will affect the graduate.

One interesting aspect of the program is called "Accelerating Relational Competencies." The program is designed to teach students to understand the affects of their behavior on others, and, in turn, the reciprocal affects of others' reactions on them. Each student has a coach who is or has been a senior executive in the business environment. Every student is also a member of a team that has team projects and is evaluated in terms of total team performance. The coach, faculty, team members, and other fellow students provide constant and ongoing feedback to the student in terms of how they affect others by their actions. The coach serves as a mentor and guide to help the student understand and act on the ongoing accumulation of data and suggest what is required of the student to be effective.

For years, behavior systems analysts have been active in business environments, working to improve the performance of individuals, primarily managers, and/or to create business environments that support effective performance. Thinking of those business environments as systems, the Accelerating Relational Competencies project seeks to make the prospective manager sensitive to the business environment in which they will find themselves, and effective in modifying that environment for their own wellbeing as well as the well being of others. When thought about in the context of the spider and the web, this sort of intervention makes sense to me in terms of behavior systems analysis.

Dr. Krapfl obtained his Ph.D. in Clinical Psychology from the University of Missouri in 1967. He served as an assistant professor at the University of Missouri School of Medicine, an Associate Professor and Director of the MA program at Drake University, before joining West Virginia University. There he was a full professor and Director of Graduate and Clinical Training, and then Chair of the Department. Dr. Krapfl then moved to Chicago in 1980 where he was President of COBA, Inc., an international consulting company on strategy development and implementation. He has served as a consultant to, among others, the CEOs of several global financial services companies, health care companies, insurance companies, and manufacturers. He has also served as a consultant and advisor to the governors of three states on both personnel selection and health related services planning and implementation. He is currently retired and residing in Williamsburg Virginia where he is affiliated with the College of William and Mary.