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CHILD SURVIVAL AND INTERNATIONAL HEALTH: A CASE FOR BEHAVIOR INFLUENCE

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We need to shift gears now and think of developing countries and the problems they face. Think hot and dusty. Think about your lost luggage; hotel not having the reservation you had made three weeks ago; streets packed like Times Square on New Year's Eve with people speaking languages you can't decipher; pungent smells in heavy air; strange, illogical behavior; strange money, dirt, traffic, and noise. Somehow behavior analysis is useful here? And will I, as a Behavior Analyst, be able to figure out how to use it?

The answers are yes, with an added, "It's about time!" International development in general has been dominated by economists, agronomists, politicians and charities for the past twenty years because most people thought the problems of underdevelopment were treatable by more money and a sharing of technologies that work so beautifully here in the West. The World Bank and the IMF are beginning to see that billions of dollars are not helping as predicted, indeed, the loans are even

causing serious problems in the countries they intended to help. Other development agencies are also discovering that low productivity in agriculture for example, cannot be solved with a shipment of tractors or high yielding seeds. And it is the same in health, those problems are not being significantly affected by more medicines, more doctors or more hospitals. What professionals in development are discovering is that technology is not the answer because the critical question is not a technical one. The essential question is what must people and communities do differently to solve their own economic, health, food, and social problems? So, the focus is shifting more and more to questions about behavior, and it is time then for behavior analysis to offer its expertise in identifying a route to a desired behavior change.

The task however, is more than a simple transfer of behavioral technology. Assertion training workshops are not going to help Third World women convince their husbands to use family planning methods. Problems in international development are amenable to behavioral intervention, I contend, but via a judicious application of behavioral principles, not techniques. It can be done even better by taking the particular Krasnerian slant to behavior influence. Specifically, I am referring to two lessons of his that have stuck with me over the years. One is the broad base analysis of multiple streams of influence: combining the microscopic view of antecedents and consequences on individual behavior with the broader influences (social, economic, cultural, political) of the environment in which that

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behavior occurs. Second, is his emphasis on the role of the participant observer in the behavior influence process. Today, we will consider ourselves, the behavior analyst, as a foreigner in someone else's country, and so it is largely through direct experience of that environment's contingencies on our own behavior and our subsequent ability to observe and learn that system, that we might be able to employ behavioral analysis effectively to problems we are being asked to address.

In using behavioral analysis in the Third World, some aspects are the same as tackling community-wide problems in the US and some are different. What is the same, is that behavior is influenced by environmental contingencies, and that by analyzing and altering those contingencies, one can effect a certain degree of behavior change in individuals in that community. What is different, is that your own ability to function, both personally and professionally, is profoundly effected by that very environment, so thoroughly infact that what seemed to be basic ABC's of behavior in America now are taking on unpredictable dimensions. What we thought was human nature is more likely to be only American nature.

Although many development efforts have focused on non-technical issues: community participation, training, attitude change, the first attempt to use behavior analysis explicitly in international health is a project called HEALTHCOM, short for health communications, funded by the US Agency for International Development. The project works with professionals in Ministries of Health in 17 developing countries, to teach an empirical

approach to the design and implementation of media campaigns to support community-wide participation in the prevention and treatment of childhood diseases. It is called social marketing, and is based in large part on the Stanford Heart Disease Prevention Program. These carefully designed media campaigns usually target health professionals and family members, particularly women, regarding what behaviors need to be trained or mobilized to control diarrhea, immunize infants in the first year of life, and promote exclusive breast feeding and other infant feeding practices. (define child survival)

It's a first marriage for both partners. The behavioral consultants used in the project are talented American researchers who had, up until their involvement with HEALTHCOM, little if any experience in developing countries. The staff at HEALTHCOM on the other hand, was told that behavioral analysis was crucial to the design and implementation of their projects, yet they hadn't a clue what this behavioral stuff was all about. That's where I come in, to bridge the conceptual and communication gap between the two parties. The behaviorists are to conduct program relevant behavioral research and to contribute a behavioral perspective to the design and implementation of the health communication projects in the various countries. The HEALTHCOM staff, both Washington based and residing in-country, coordinate the efforts of local governments, ad agencies, private enterprise, scholars, and the medical community to produce changes in the health behavior of a target population. I will not describe our projects too much more today. If you are

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interested, one of the behavioral consultants, John Elder from San Diego School of Public Health, will be presenting a paper co-authored with Paul Touchette from UC Irvine, on their work in the HEALTHCOM project, specifically on diarrheal control. It is at 9:30 on Friday morning. Other behaviorists are Scott Geller, Doug Porter, and Jim Holland.

In the remaining time, I want to give you a taste of how behavioral analysis can be applied to large scale health problems in the Third World. I will use an example, the problems in achieving high coverage of immunizations for five childhood diseases: measles, polio, diphtheria, pertussis, and typhus. The medical technology is available, it has brought these diseases under control in the Western world, but in most developing countries, widespread impact on morbidity and mortality of these diseases has not yet been achieved.

Many benign childhood diseases in America, e.g., measles and diarrhea, are big killers in developing countries. Diarrhea alone kills 5 million children a year through dehydration. These diseases are fatal mainly because children start off with low birth weight, are chronically malnourished, and are then bombarded with multiple infectious diseases in their first five years of life. From a biomedical viewpoint, these deaths are theoretically and technically preventable, through vaccines or standard medicines. But the other side of the coin is that most of these diseases are caused by the spread of infection through contaminated food, water, and the living environment, further exacerbated by crowding, lack of access to food and from parents'

lack of access to the means of production. And in general, from peoples' behavior in dealing with these conditions. WHO has established a recommended regime of 5 immunizations to be spaced out in a specific sequence during the first year of a child's life. The series must be completed, however, to give full protection. Although coverage rates vary widely from country to country, and within countries, in general, coverage of children under one year of age is discouragingly low despite massive efforts on the part of many governments and donor agencies. The problem is that parents come for one or two shots but rarely complete all five. Usually supply issues predominate any analysis of the problem: no clinics, sporadic supply of vaccines, inadequate training of health personnel or unreliable payment of salaries, clinics emptied of supplies due to theft. Environmental conditions are also culprits: political upheavals, torrential rains or earthquakes, no roads or means of transport to the immunization sites. However, even when service delivery problems are brought under control, women still do not line up to have their children immunized. To achieve widescale coverage, we are finding that behavior change of specifically targeted populations is critical, much more than a curative, medical model. (Does this sound familiar?) The medical community to its credit, has been aware of the behavioral element all along, but it sees no viable methodology for effectively changing behaviors clouded, in its view, by ignorance, maladaptive cultural beliefs, and logistical nightmares. When they turn to the question of why is the dropout rate so high for immunizations, they conceptualize

it as a compliance problem: what types of women complete the series, and what types dropout? (Does this sound familiar?)

This is where a behavioral perspective can be applied.

First in its application, is to get health policy makers and project designers to focus on what behaviors need to be changed, and in whom, to increase the rates of completion of the immunization series. What is required of a woman to bring her infant to the clinic five precisely spaced times over the course of a year? What role does the behavior of the clinic health worker have in completion rates?

Second, is to analyze the desired behavior for what antecedents would trigger it and what consequences would follow. It is important here to discriminate between the immediate, observable, and salient consequences from the delayed or abstract consequences. Third, is to analyze in similar fashion the current behaviors the target audience is doing instead of the desired behavior. Regardless of how illogical that behavior may seem to us, if all human behavior is guided by environmental contingencies, then it is up to us to find what those are despite the apparent mystery of the environment we are analyzing. For example, women not versed in germ theory will focus on the immediately observable consequences to immunizations. The time and social costs are high to walk miles to the clinic, to wait hours, to be treated rudely or turned away without service. Their child is sometimes made ill from the vaccination. Why give a healthy baby a shot? Health workers are often inadequately trained and often cannot rely on regular paychecks or regular

supervision. Overworked and underpaid, their health education messages, delivered well or poorly or not at all make no difference in their jobs or salaries. There is little accountability and little recognition. It's not then a question of whether mothers "care" for their babies or whether health workers "care" about their work. There is little in the environment to support what we would label as caring behavior. Here, most clearly, we see how the broader environmental influences Len Krasner talks about are crucial in a functional analysis of this immunization drop out problem. And one of the most effective ways to do an accurate analysis for the local context is as a participant observer.

Fourth and last in the application of behavior analysis, is in working professionally with the medical, political, economic and social systems of the country to find the most locally appropriate means to make behavioral changes. In making these efforts, it is important to remember all the while that the behavior of the professionals with whom you are working is also influenced by contingencies in the environment. Thus, to understand what motivates and maintains their behavior and how best you as a foreign professional and your project might make sense to them, you can use behavior analysis on a systems level as well. You are a participant observer in that system and from that position, you can directly experience the wider influences on your own and your colleagues' behavior. I have done this a number of times working overseas.

In conclusion, my perspective as a behaviorist, and

especially a broader environmental design perspective I learned from Len Krasner, has been most useful in my work in international development and in HEALTHCOM in particular. More generally though, these experiences show that behavior analysis as a discipline can make important contributions to the strategies used to solve problems in developing countries.