

GUEST EDITORIAL: TWENTY YEARS LATER, COMMENTARY ON SKINNER'S "WHY WE ARE NOT ACTING TO SAVE THE WORLD"

Skinner's "Why We Are Not Acting to Save the World" was presented to the American Psychological Association in August, 1982. It was later published in a collection of papers "*Upon Further Reflection*" (1987). This article is important to behavior analysts because it asks us to move beyond our aspirations of helping people live better and more productive lives, to applying behavior analysis to the problems that imperil the very existence of the human species and the cultures that humankind have produced.

In the first paragraph of the article, Skinner outlines the perils from his perspective that were largely not being addressed in effective ways at the time he wrote the paper. He writes,

Most thoughtful people agree that the world is in serious trouble. A nuclear war could mean a nuclear winter that would destroy all living things; fossil fuels will not last forever, and many other critical resources are nearing exhaustion; the earth grows steadily less habitable; and all this is exacerbated by a burgeoning population that resists control. The timetable may not be clear, but the threat is real. That many people have begun to find a recital of these dangers tiresome is perhaps an even greater threat. (p. 1).

Skinner asks, "Why is more not being done?" It is undeniable that we have made great strides in science and technology that could be of use in solving our problems. Skinner suggests that our failure to act is not due to a lack of knowledge of what needs to be done: destroying nuclear weapons, reducing population, conserving resources and reducing pollution. Yet, effective action eludes us.

Shunning traditional explanations of lack of will or intelligence, Skinner not surprisingly suggests, "A better strategy is to look at our behavior and at the environmental conditions of which it is a function" (p. 2). In a literal sense, future events that have yet to happen cannot act directly on us and we cannot act directly on the future events. Our behavior is in the present and must necessarily affect current events which in turn may affect subsequent events.

Skinner points out that natural selection prepares an organism for the future, but it does so effectively only to the extent that the future resembles the selecting past. The ability of an organism to have its behavior altered through the processes of operant conditioning breaks through the limitations imposed by natural selection. In the case of many species, including human beings, this includes stimuli of social origin. At some point in the evolution of human beings, movements of the vocal musculature came under the control of social stimuli and language emerged. Skinner suggests that language is a

product of cultural processes. Cultural processes involve the selection by consequences of a practice based on its effects on the survival of the group engaging in the practice.

Skinner points to the inherited susceptibilities to certain forms of reinforcement which have contributed to the success of the species in the selecting past as the cause of current problems for members of the species and for the species as a whole. For example, susceptibilities to sweet and salty substances are implicated in a number of illnesses such as sugar diabetes and hypertension. More damaging for the species are the susceptibilities to aggression reinforcers and sexual stimulation. At a time when humans were struggling to survive in a hostile physical environment resulting in short life spans, these susceptibilities had survival value. In a time when weapons of mass destruction are available, the susceptibility to aggression reinforcers threatens the very existence of the species. Likewise, in a time of historically long life spans and a less hostile physical environment, the susceptibility to sexual reinforcers has led to a rate of population growth that is beyond the earth's capacity to sustain. As the population grows, the quality of life decreases. We live in more crowded spaces with dirtier air, less pure water and with economic hardship as resources diminish.

Many warnings have been issued from the scientific community, but they have gone substantially unheeded, leaving us with the same threats, as well as new ones, as when Skinner penned this article. Why are warnings not heeded? Skinner suggests that knowing by the description of others is a weak technique of influence when compared to knowing by acquaintance. That is, the motivation to act based on a rule is not as great as the direct experience with the contingency that the rule describes. Warnings by their very nature are aversive. Skinner suggests that it is often easier just to ignore or forget the warnings than to take effective avoidance actions. In addition, many of the actions specified in the warning involve the forgoing of powerful positive reinforcers. In such cases, many individuals may rationalize to both minimize the aversiveness of the threat and to allow the individual to continue the strongly reinforced practice in good conscience.

If we cannot act on the future in the literal sense, we can still affect the future by arranging contingencies for present behavior controlled by stimulus events in the present. Skinner points out that the institutions of business, government and religions do so routinely. But the behaviors that are reinforced or punished by these institutions are not ones that lead to positive effects on our gravest problems. Scarcity raises prices so that the individual with the scarce commodity is paid more handsomely and thus even more likely to plunder the resource. Religions may punish those who attempt to prevent or terminate conception. Nuclear weapons make it more likely in the short run for a particular government or country to avoid attack and thereby retain its power. But in so doing, the government directly or indirectly threatens other governments who in turn seek nuclear weapons in order to also be protected. A growing population creates new consumers from which existing businesses can profit. Governments and religions as well as their leaders both at local, national and international levels command more power and money the greater the population of their members.

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Skinner suggests that the practices of these institutions have resulted from the selecting past. But we have also developed a highly sophisticated set of scientific practices making intervention into the problems of mankind possible. The purposeful application of science to the design of cultural practices is now possible. We need not wait for unplanned variations to be selected by natural contingencies.

Skinner speaks of the uncommitted, referring to those uncommitted to religion, governments, and enterprise. Those who are committed will view things that promote the welfare of their particular government, religion, or enterprise as being good even if these things are in conflict with the survival of the larger culture or even the species itself. Skinner suggests that scientists committed to their subject matters but not to governments, religions, and enterprises may be in the best position to interpret and predict the effects of current events on the future.

Have we made substantial progress on the threats that Skinner mentions in the article's opening paragraph? By some estimates, the world has 40 years of petroleum resources remaining (Conway, 2004). This is 20 years less than the amount estimated in 1982. Our energy problem will become acute as petroleum reserves are depleted. Petroleum is also a component of a host of other products. The industries making these products and the consumers using them will be greatly affected. Will we turn to other more polluting or dangerous technologies like coal or nuclear to supply our energy?

World population still spirals out of control. Almost 2 billion more people live on this planet than when Skinner delivered his paper. Someone born in 1950 would have been one of 2.5 billion people, but this same person in 2030 will share the planet with 8.1 billion at current rates of population growth (U.S. Census Bureau, 2004). That would be an increase of over 5.5 billion in one 80-year life span!

The *Bulletin of Atomic Scientists* (2004) first published the Doomsday Clock in 1947. The Doomsday Clock is not a scientific metric; the *Bulletin* selected the original setting of 7 minutes to midnight based on its artistic look as a graphic. Nevertheless, since 1949, the clock has been adjusted up and down as world events were interpreted as increasing or decreasing the threat from atomic weapons. Based on this logic, the risk of nuclear war is considered by the Bulletin to have been equal in 1980, today, and when it first appeared in 1947. The most favorable setting of 17 minutes to midnight occurred in 1991 after the START talks were ratified by the former Soviet Union and the United States. The least favorable setting of 2 minutes to midnight occurred in 1953 after the Soviet Union and the United States had tested atomic weapons within 9 months of each other. The clock was last adjusted in 2002 to its current level as a result of the United States rejecting a series of arms control measures and terrorist groups reportedly attempting to obtain nuclear weapons.

Global warming results from the emission of heat trapping gases, such as carbon dioxide and methane (Thurman & Burton, 1995). The temperature over the past 140 years has risen about 1.5 degrees Fahrenheit with half of the rise occurring in the past 25 years (Union of Concerned Scientists, 2004). The continued warming of the planet could lead to calamitous world climate changes. Based on recent estimates deforestation is currently occurring at a rate of 52,000 square miles a year (Global Forest Watch, 2004;

Sustainable Development Information Service, 2004). That is more than a million square miles since 1982, when Skinner delivered his paper to the American Psychological Association. Soon the rate of deforestation will decline, not from increased exploitation, but due to the decline in the resource itself.

What is to be done? Skinner admitted that his view was utopian. He called for the design of better cultural practices using the science and technology of our science. Those who designed these practices would not be committed to the ideologies of government, religions, or enterprise. Skinner did not see how this could be done as a gradual piecemeal process. He feared that inevitably as the larger cultural institutions of government, religion, and enterprise understood the implications of the cultural changes, they would resist. He proposed building a new culture from the ground up as in *Walden Two* (Skinner, 1948).

The first non-fictional community of intentional design that bears some relation to the ideas Skinner expressed in *Walden Two* is *Twin Oaks* established in 1967, but another, *Los Horcones*, established in 1973 may be closer to Skinner's original idea (Kinkade, 1973; *Comunidad Los Horcones*, 2004). Thirty years removed from the establishment of *Los Horcones*, there has not been an exponential growth of other similar communities. In the meantime, the problems of the world go unabated. That is not to say these communities are not well designed, thriving, or conducive to its members leading happy, productive lives. It is to say that the solutions to the world's gravest problems are unlikely to be solved from designing functional small cultures without directly addressing the defective contingencies in the larger cultures. Small adaptive communities will perish or suffer along with large maladaptive ones in the event of nuclear war or dramatic climate change. Our problems are too great, and the timeline too short to wait for utopia.

Skinner expresses a pessimistic view of the chances of the uncommitted to influence governments, religions, and economic systems (1987). He states,

Many organizations are dedicated to the prevention of nuclear war, overpopulation, and the exhaustion and destruction of a livable environment, but their protests are necessarily directed toward governments, religions and economic systems, and there they stop. Moreover, the principal modus operandi of these organizations is to frighten people, rather than offer them a world to which they will turn because of the reinforcing consequences of doing so (Skinner, 1987, p.13).

Perhaps the problem of the uncommitted is that they are not uncommitted enough. Many of the organizations to which Skinner refers have become overtly political. They chastise not just a policy but also the persons within the government who advocate for a policy that is unsound. Then they openly support partisan individuals who support an opposing policy. The end result is that the uncommitted are dismissed as either liberals or reactionaries aligned with the interests of the other political party. If the uncommitted are to influence policy rather than to just influence those individuals who believe the same way to vote in a certain way or to protest, then they must publicly stand above the fray and speak with the scientific authority permitted by acquaintance with the data of the science. Otherwise, they simply become another interest group aligned with one of the

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current power structures and thereby have what they say dismissed by others as motivated by partisan politics.

Skinner included scholars, the media, and others as part of the uncommitted. Much has changed in the popular media since 1982. Cable television news has come to dominate it. The traditions of journalism to report in an honest non-biased manner have been replaced in part by efforts to directly manipulate the news of the day to favor one political party over another. Impartial news programs have been largely replaced by programs that pair partisans one against another like pro wrestlers with no real winner emerging, but making for a good spectacle all the same.

Seldom are the opinions of the uncommitted solicited or aired by the popular media. It is critical that the uncommitted have fluid access to the public through the popular media if the general public is to be influenced. But it is also critical that the public see and hear that the opinions of the uncommitted are independent of any particular government, religion, or business institution. We believe the uncommitted can be a force for cultural change, but they first must be truly uncommitted to governments, religions and enterprise. The uncommitted must organize in more effective ways and work together with mutual respect and understanding of what the others have to offer to the common cause.

The place of behavioral science is unclear. Which behavioral sciences are recognized as having something of value to offer? Would behavior analysis be included in a unified effort of uncommitted scientists? Behavior analysts must make effective alliances with the other sciences as well with other scholars and the media to solidify legitimacy in making efforts to solve societal problems with applications of behavioral science. To effectively influence the institutions of government, religion, and enterprise, we must better understand the contingencies within these institutional cultures. Behavior analysts are the experts in this type of analysis. The goal is to get the cultural practices of these institutions more aligned with the survival of the species.

The mechanisms of change are likely to differ across religions, economic systems, and governments, but careful analysis will reveal potentially effective strategies. Population growth in the United States could be altered by changing the tax system from one in which the parents of children get deductions for having children to one in which childless parents get credits for not having them. To stop population growth due to illegal immigration, penalty contingencies on business owners who hire and exploit illegal aliens could alter the hiring practices of owners and the immigrating behaviors of aliens. Different strategies for population growth would be needed in China or some other culture.

We have been effective in changing cultural practices in businesses. The creation of a safety culture is an example (Geller, 2001). The aligning of the welfare of a business with the physical welfare of its workers is little different than aligning other cultural institutions with the survival of the species except that the latter is on a grander scale than the former. Perhaps, an experimental community could serve as a lab studying the processes of cultural change that may then eventually prove to be useful in addressing mechanisms for cultural change in altering the more damaging practices of the larger

cultures. However, relying on designed communities to directly displace the larger cultures as a means to save the world offers false hope (Rumph & Ninness, 2001). We, the uncommitted, must tackle the problem directly with renewed vigor and better organization. Skinner (1978) once asked, "Are we free to have a future?" Well, are we?

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