

B. F. SKINNER ON HUMAN NATURE, CULTURE, AND RELIGION

by John Wagenaar

Since the publication of *Walden II*, in 1948, B. F. Skinner has moved beyond strict behaviorist research and applications to address problems that also engage theoreticians of religion.¹ In works like *Beyond Freedom and Dignity* (1971) and *About Behaviorism* (1974) Skinner has a good deal to say about the future of culture; his discussions in these books range through various broad issues: values, personal identity, freedom, emotionality, purpose, intention, thinking, subjectivity, and objectivity. In *Verbal Behavior* (1957) he deals specifically with literature and aesthetic interests.² These aspects of Skinner's thought have commanded increasing critical attention from humanistic and religious thinkers. Frequently, however, these critics have not given adequate recognition to the experimental foundations of Skinner's thought. For example, in *Beyond Freedom and Dignity* Skinner develops a case for his theory of human nature and culture which rests within a framework of "operant behaviorist" psychology. He *assumes* an "operant" system and then argues for its implementation on a broader cultural scale. His readers are referred to the appropriate supporting psychological sources.³ Yet, in attempting to address the complex issue of the adequacy of Skinner's theoretical analysis, some critics

John Wagenaar is assistant professor of psychology, Northwestern College, Orange City, Iowa.

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have in effect spent much of their time contesting the findings of "operant" psychology itself. According to Skinner, misunderstanding of the "science of behavior" has led to its confusion with a "philosophy" of behaviorism.⁴ Consequently, from an "operant" psychological perspective it has been difficult to make sense of, for example, Noam Chomsky's rather violent critical review of *Beyond Freedom and Dignity*.⁵ Richard Rubenstein, a theologian, has concluded that *Beyond Freedom and Dignity* is a "blueprint of hell."⁶ The few sympathetic reviews of this work which appeared were by psychologists familiar with Skinner's experimental success.⁷ The historian Arnold Toynbee in his own review clearly gives the most important reason for many of the humanists' problems with Skinner. He complains of the esoteric language used by Skinner and his apparent assumption that everyone knows or should know what the language means. Hardly anyone does, and it is commendable that Toynbee raises this point: "The words 'contingencies,' 'reinforcers,' and 'reinforcement' are evidently key terms. They are also apparently being used in a technical sense, and the uninitiated reader has to guess at their technical meaning, at the risk, if he guesses wrong, of failing to do justice to Skinner's argument."⁸ Simply stated, Skinner's arguments are difficult to understand without a reasonable acquaintance with principles of the "experimental analysis of behavior."⁹

To clarify the misunderstandings of critics in regard to the basic principles of "operant" behaviorist psychology would be a task beyond the scope of this essay. Instead, I wish to place Skinner within a broader context of discussion. In the first section of this essay a brief evaluation will be made of the major philosophical themes appearing in most critical discussions of Skinner. I hope some clarification of Skinner's position on these critical matters will be attained. Skinner's own estimate of human nature and destiny will be included in this initial section. In the second section Skinner's understanding of religion will be presented in relationship to his psychological analysis. A tentative exploration will be made of ways in which he might be able to entertain religious claims. In the third and final section I will briefly consider a "limitation" of the Skinnerian perspective on human nature.

PHILOSOPHICAL AND CULTURAL IMPLICATIONS OF SKINNER

Freudian and humanistic psychologists hold to the priority of internal motivation. Skinner resists this classical view of behavior by locating the "causes" or "reasons" for behavior outside the individual. While nonbehaviorist psychologists do not deny the importance of external empirical causes, they regard them ultimately as trivial for the per-

sonal and human dimension. Skinner has admitted that his perspective does not have the "richness" of a humanistic one. He has stated, however, that his analysis is not there "to be rich" in the same way that the physicist's world is not there to give the "rich" context of a walk in the woods. The direction of Skinner's thinking is toward the pragmatic. His question in terms of scientific psychology is this: How do we begin with an empirical analysis designed to produce conclusions enabling us in a practical way to predict and control human behavior? The answer is that in a scientific analysis "the individual is not the origin or source."¹⁰

According to Skinner, the beguiling spell of traditional philosophical and religious "because" explanations of human behavior has prevented us from acquiring an "effective" understanding of our practical situation. Skinner thinks that we may have been trapped into a wrong, and perhaps fatal, methodology which insists on looking for explanation in the subjective tissue of human life.¹¹ While the "felt experience" of so-called inner motivation may tell us something about the nature of internal conditions, it is unable to tell us what produced them. It is an error, then, to claim that such "knowledge" helps us understand the human person in the sense of predicting and controlling his behavior. In fact, such information is epiphenomenal to the experimentally illustrated motivating forces in people's lives.

Reinforcement as the more or less exclusive explanation for the maintenance of behaviors is Skinner's equivalent for the traditional concept of "purpose." Skinner says that "purpose" and "intentionality" are certainly valid concepts but must be appropriately translated in a scientific analysis so that something may be done about them. The capacity for being reinforced, along with its efficacy, obtains whether or not one is aware of it. In fact, one does not even need to "know" the goal of the reinforcement in order to have that reinforcement be effective. The future probability of any behavioral event is increased by the reinforcement that follows. Reinforcement has a selective effect on the behavioral repertoire similar to the long-term evolutionary effects of natural selection on the species. Skinner argues that the problems of purpose with respect to behavior can be effectively dealt with in a way similar to the resolution of such problems with respect to the facts of biological evolution. Since people are genetically programmed for susceptibility to reinforcement, the "purposiveness" problem reverts finally to the evolutionary level.

In biological evolution we do not say that a spider spins a web in order to catch flies but that those spiders which spun webs, enabling them to trap flies, survived. While one may "emit" a present behavior with an eye to future consequences, the fact that one does so is de-

pendent on a previous history with certain reinforcing consequences. Purpose and intention have reference to "independent variables" (motivating circumstances). In speaking of the purpose of a particular act, one usually refers to its consequences. The actual behavior may be explained without adding substantive qualities such as "purpose" or "intentionality." If feelings are entirely epiphenomenal, a conclusion questioned by anti-Skinnerians, then the "sense of intentionality" is not autonomous but a reaction to the external controlling variables of which actions ("behaviors") are a function. If Skinner is correct in his scientific analysis, the way that "intentionality" may most effectively be utilized is by rejecting its supposed claim to "causality." And so, ironically, Skinner urges intentionality in order to eliminate myths of intentionality and purposiveness with respect to behavior. Or consider the predicament of those who believe in the causative status of intentionality. They are, presumably, most disadvantageously positioned by virtue of their belief with respect to effective utilization of intentionality. In denying the philosophical claims for purpose, Skinner emerges as its strongest defender in the pragmatic sense; those who would champion purpose, says Skinner, exhibit little actual purpose in practical affairs.¹² Skinner argues that "by their fruits ye shall know them" and clearly thinks that he escapes judgment by that test.

The primary aspect of the Skinnerian system which frightens concerned humanists is the notion of control, and, in fact, many critical analyses get no further than this. Arguments centering on freedom, creativity, responsibility, and morality usually have at their root a fierce rejection of "control."¹³ Skinner attempts to unravel this problem with an original and interesting behaviorist analysis of the forms that objections to "control" take. Skinner's response is that control exists whether recognized or not. We can make use of it if we recognize it. The reason people object so violently to control is that in the past it has been misused. This is a perfectly reasonable fear. However, the solution is not to deny that control exists but to ensure that proper forms of control will be maintained. Those who argue for "freedom" (denying control) lose the opportunity for those very humanistic changes which they so ardently desire.

A hypothesis which is essentially deterministic, Skinner says, is necessary to make any sense at all out of human behavior. In our "prescientific" everyday life we function on this presupposition, articulated or not. That does not mean that we do not feel free when we act personally. The reason we feel free may be that, in a single instance, we are never aware of all the environmental factors or "reasons" which may lead us to action. There is always the undeter-

mined element which, nevertheless, affects behavior; these elements are "undetermined" in the sense of their being unknown factors in the extremely complex matrix of human behavior.

Skinner has shown convincingly, I think, that the terms "freedom" and "responsibility" as used by his opponents make sense only in a context of "aversive control." To be free, then, is to be able to avoid the effects of tyrannical governments, punitive agencies, or aversive consequences of punishment. Continuing to insist that "freedom" means uncaused or "self-initiated" behavior is a mistake which abdicates to capricious forces the controlling factors. It is futile to increase "freedom" per se, given the determinism of events. Human initiatives are not threatened; the concern is with the assumption that these initiatives are uncaused. Paradoxically, determinism permits increased freedom: Recognizing the factors responsible for change, persons can find themselves confronted with significant alternative courses of action.

Skinner emphasizes ways in which people can learn to behave other than through moral "exhortation" or appeals to how people "ought" to behave. In its appeals to norms, the moralistic approach, says Skinner, can succeed only in conjunction with a punitive system. The obvious negative side effects of such a procedure seriously call into question its merits. In addition, one must deal with the complex problems of enforcement, detection of offenders, and meting out of punishments. The better alternative is to build a world in which people are naturally happy. They will be "free" in the sense that they will be doing things because they want to (positive reinforcement), not because they have to (aversive control).

More specifically, how is this to be accomplished? According to Skinner, culture is responsible for all the ways in which an individual behaves through the prevailing set of "contingencies of reinforcement." The values of a particular society are defined in terms of what is found to be positively reinforcing with reference to the ultimate destiny of that culture. Our values are the "long-term consequences" of our present behaviors. The problem of ethics is to program intermediate steps between the short-run personal reinforcers, which do not always *further* the culture in the long-run, and the long-run reinforcers of the culture, which are not always clearly reinforcing in the immediate personal sense. The task and contribution of a behaviorist ethics is to bring people effectively under control of the future long-term consequences of their behaviors. This can be done by harmonizing the personal and long-term goals. For example, it is easy to smoke now and die of lung cancer later, or to overeat daily and suffer the aversive consequences later. Behavior which is controlled by im-

mediate and stronger reinforcers rather than the long-term, incompatible, and weaker reinforcers has great significance in an ecological context. It is easy to spoil the natural environment for immediate gratification at the future expense of certain necessities. The problem to be overcome is an age-old one of how people can be persuaded to engage in behaviors having long-term good effects. In the past this has been done at the expense of immediate personal gratification through use of "aversive control" procedures. In contrast, Skinner proposes to bring people's behavior under control of long-term reinforcers, or values, through positive methods.¹⁴ Behaviorist technology has the means for effecting such a task. The mechanics of this cultural engineering task would be very much like the programs already being used in education and therapy which serve in similar ways to bring behavior under control of long-run consequences.

Culture is engaged in its own self-control through the effects of its practices on individual members. People become free in utilizing contingencies of reinforcement. The "controlling self" directs the "controlled self." The kind of theological implications which the possibility of control has in removing conditions which produce guilt and moral struggles remains to be worked out. Skinner has remarked that the "devil" of internal religious struggles can be "tricked" by the use of self-control procedures. "Moral conflict" is really one of the immediate reinforcers in conflict with long-run ones. A fundamental task of a leisure-time society will be to teach people the use of self-control procedures so that they may learn to forego the more immediate positive consequences (the "pleasures of the flesh") associated with particular behaviors in order to avoid what, in the long run, may prove to be "aversive." This is similar to the ethical training by religious agencies. But, as noted above, there is a dramatic difference. Discipline implies suffering aversive consequences. In the self-control procedures the change will be effortless since it is based on a program with small steps leading to a goal that removes reinforcing consequences from undesired behavior and instead makes them contingent on desired behavior utilizing a particularly effective schedule of their presentation.¹⁵

Skinner's utopian thinking is the source of his most creative cultural suggestions.¹⁶ Here we find a general application of behaviorism to problems of society and development of culture. Since writing *Walden II*, he has been increasingly concerned with problems of leisure: What a culture does with its leisure time, says Skinner, has an important bearing on whether it will survive. Utopias past and present have failed because they have not taken into account the "contingencies of reinforcement." Typically, all have concentrated on the "good life."

Components of the good life are universally described as satisfaction of basic needs but *without* the specifications of those behaviors or actions required to obtain these reinforcers. This is a serious conceptual flaw and assumes that people will be happy once they have free access to everything that they may desire. But it is apparent that happiness is not of that sort. Attempts to retain the conceptualization of basic needs focus on postulating additional "spiritual needs."

What a man *does* to attain his basic reinforcers is the important thing—not the reinforcers themselves. What is a person to do when all of his reinforcers have been freely provided by an affluent society?¹⁷ This question becomes serious when one recognizes that all of man's behaviors are maintained by some kind of reinforcers, either positive or negative. When all the basic reinforcers have been provided, lesser "inconsequential" reinforcers, such as gambling, use of drugs, spectator sports, fascination with violence, and sexual preoccupation, gain control of behaviors. Skinner believes that the relevancies of a cultural "behavioral repertoire" to an "emergency" would presumably be "extinguished" under a long-range program utilizing inconsequential reinforcers.¹⁸ To prevent this, society must design alternatives which provide for creative skills such as the arts, crafts, music, literature, and humanistic studies. It is interesting to note that these are all goals of a broad liberal arts education.

In conclusion, I think it may be said that Skinner believes that the individual person is in control of his behavior and destiny. However, the way he directs his own behavior as well as that of others is by attending to the "contingencies of reinforcement." For the purpose of scientific analysis, what a person chooses must always be seen to be foreordained by the exigencies of his culture. All empirical evidence points toward the conclusion that people's behaviors are determined by the contingencies of reinforcement which have to do with the consequences of their actions.¹⁹ Intelligent existence demands that we effectively use what we know to be true about ourselves and our culture.²⁰

SKINNER ON RELIGION

Skinner's personal experience provides an interesting background for considering his understanding of religion and psychology. My primary source is his autobiographical essay, in which his early religious milieu is clearly indicated. Skinner notes that he had always been interested in observing and interpreting animal and human behavior. On the strength of advice received from Robert Frost, he became a writer.²¹ Skinner failed badly as a writer because he had "nothing important to say." Instead of blaming himself, he concluded that

literature by its nature precludes accurate analysis of human behavior. While writers may accurately portray behavior, they seldom understand it. However, Skinner retained a life-long interest in literature and its special effects. His transition to science and psychology as a way of understanding human behavior was facilitated by Alf Evers, an artist, who told Skinner that "science . . . is the art of the twentieth century."²² In apparent support of this notion, Skinner's functional alter ego in *Walden II* says that science really belongs in the category of humanistic studies.²³ In a unique way science is a process of free and creative discovery that means to provide a "depth" understanding of the world.²⁴

Skinner has also been influenced immeasurably by the writings and experimental attitude of Francis Bacon. He acknowledges Bacon as his model. Skinner came to distrust philosophy in explaining human behavior and consistently followed Bacon's advice in organizing his data. He has an obvious preference for the intellectual era of the eighteenth century and believes strongly in its utopian emphases: "I believe in progress and have always been alert to practical significances in my research."²⁵ His optimism and "hedonistic" ethics, as well as his iconoclastic approach to religion, indicate that he is correct in placing himself in sympathy with the intellectual ethos of the eighteenth century.

Skinner's approach to religion can be further illumined by reminiscences of his personal contacts with religion. Fred Keller says that both he and Skinner, while students at Harvard, unequivocally renounced their religious heritage and vigorously protested compulsory chapel.²⁶ Following are what I take to be a number of other relevant comments by Skinner about his early experience with religion:

My mother was quick to take alarm if I showed any deviation from what was "right." Her technique of control was to say "tut-tut" and ask, "What will people think?" . . .

My grandmother Skinner made sure that I understood the concept of hell by showing me the glowing bed of coals in the parlor stove. In a traveling magician's show I saw a devil complete with horns and barbed tail, and I lay awake all that night in an agony of fear. . . .

I was taught to fear God, the police, and what people will think. As a result I usually do what I have to do with no great struggle. . . . Max Weber could be right about the Protestant Ethic. But its effect is only cautionary or restrictive. Much more important in explaining my scientific behavior are certain positive reinforcements which support Feuer's answer to Weber in which he shows that almost all noted scientists follow a "hedonistic ethic." . . . Perhaps like Jeremy Bentham and his theory of fictions I have tried to resolve my early fear of theological ghosts. Perhaps I have answered my mother's question,

“What will people think?” by proving that they do not think at all (but the question might as well have been “What will people say?”).²⁷

Skinner’s personal experiences seem to support his conclusion that religion infringes on development of a happy life. The religious is associated with fear, coercive control, and “ghosts.” There are essentially two factors in Skinner’s response to religion which relate to these undesirable features and also have to do with his psychological conclusions. The first is that the “religious agency” specializes in aversive control which, according to Skinner, is clearly unpalatable in view of the apparent side effects. A very prominent side effect is the fear and anxiety which Skinner mentions in his own case. The second factor in Skinner’s response to religion is its “mythical” explanation of reality in lieu of a “scientific” explanation. On both counts religion for Skinner is clearly to be viewed in a negative way. There is no treatment of religion by Skinner apart from these two critical factors.

These personal responses of Skinner to religion can be understood as regulative for his psychological treatment of religion. Skinner’s inadequacy lies in his identification of religion with ethical controlling agencies. In *Science and Human Behavior* he treats religion as a subtopic under the general heading of social control of groups. The government regulates certain areas of people’s behaviors, and the religious agency regulates those behaviors of groups that are labeled “ethical.” Skinner says that “the control which defines a religious agency in the narrowest possible sense derives from a claimed connection with the supernatural, through which the agency arranges or alters certain contingencies involving good or bad luck in the immediate future or eternal blessedness or damnation in the life to come.”²⁸ Skinner’s psychological discussion of religion remains on this very practical level of the mode of control that religious agencies exercise: “The justification of religious practice is an important part of theology.”²⁹ The role of “religious experience,” according to Skinner, is to convince believers that the ultimate source of control of the religious agency is “supernatural”:

Religious art, music, and pageantry generate emotional responses by portraying the suffering of martyrs, the torments of the damned, the tender emotions of the family, and so on. These responses are transferred to stimuli, verbal or nonverbal, which are later used by the agency for purposes of control. Some religious agencies resort to the use of drugs, either to induce appropriate emotional or motivational conditions or to produce effects which seem to support the claim of supernatural connection.³⁰

Primarily, religion is a set of rules and practices for the individual in community. Ethics, which for Skinner appears closest to the heart of

religion, is a matter for a science of behavior since it has to do with increasing reinforcement gain. A science of behavior can elucidate claims of value and point the way toward incorporating value-directed behavior. Instead of utilizing punishment—a prominent religious technique—a science of behavior reveals the possibility of building a world in which people naturally want to do good, rather than being compelled to. Along with many other cultural trends, as Skinner notes, religion itself has already moved in this direction: “There is less and less emphasis on hell-fire and the threat of damnation; people are to be good for positive reasons, for the love of God or their fellowman.”³¹

Skinner does not investigate religious claims or how they might be made. Specific religious claims are, presumably, beyond the reach of a science of behavior. Generally, Skinner leaves these kinds of questions open-ended—to be answered by the specialists in religion. It is evident that religion as such does not interest Skinner. Sometimes he appears to suggest that a science of behavior will render religion superfluous. This approach is cautiously defended in his novel *Walden II*. There Frazier explains how religion has been superseded in the community of Walden II. Religious practices have “fallen away little by little, like drinking and smoking.”³² The people of Walden II are just as “devout” as church members. These comments illustrate Skinner’s behavioral-control view of religion. Yet there are hints that might allow for a more adequate view of religion. Frazier adds that certain religious practices have been retained for the Sunday community service. The performance of religious music and the reading of religious, poetic, or philosophical works are legitimate Sunday morning experiences.³³ Frazier says that the “rich effects” these practices have upon the speech of the community are desirable.

Skinner clearly attributes independent status to the aesthetic effect of experience apart from any scientific or religious claims. In *Verbal Behavior* he focuses on the uniqueness of literature, poetry, and the storytelling arts. It would appear that insofar as religion is something more than a matter of controlling ethical behavior, this “more” can be expressed by what Skinner views as the independence of the aesthetic or imaginative function. For example, Skinner says that a literary description of behavior offers a valid understanding entirely different from scientific description: “In literature there are no similar practical consequences and metaphorical extensions therefore prevail. No one will deny that they are effective; but the advantage we gain by reading Dostoyevsky or Joyce, in coming to share their ‘knowledge’ or ‘understanding’ of human nature, is very different from the advantage gained from scientific study.”³⁴ It is clear that a

literary description will never be superseded by an operant analysis. Literature gives a different view of the subject matter. It brings "richness." Skinner says that science has no intention of destroying this "richness": "Man has not changed because we look at him, talk about him, and analyze him scientifically. His achievements in science, government, religion, art, and literature remain as they have always been, to be admired as one admires a storm at sea or autumn foliage or a mountain peak, quite apart from their origins and untouched by a scientific analysis."³⁵

Scientific description is strictly controlled by accurate contact with the external physical world. "Subjective" emotional conditions ("deprivation," "satiation") should have no effect on scientific description. On the other hand, literary or aesthetic expression is not restricted by the exigencies of the physical world and depends far more on the audience's emotional predispositions. This seems to be the basic difference between these two kinds of discourse. Skinner lists the uniquely reinforcing characteristics of the world of literature as follows:

In the first place, literary behavior is marked by "license." It is rich in verbal magic, trivial controlling variables, and multiple effects. For this reason, as we have seen, it is an excellent source of examples of subtle behavioral effects. It is also rich in metaphor, not only in the colorful figures which account for much of the emotional and imaginal behavior of the reader, but those far-fetched generic or metaphorical extensions which are semi-intellectual in their effect but which would not be tolerated within the stricter canons of science. . . .

Literature is also the sphere of the symbol. A symbolic response is metaphorical. . . . In addition to responses of trivial strength or far-fetched metaphors and symbols, the literary environment tolerates verbal behavior organized around powerful themes—behavior which is otherwise withheld, not necessarily because of earlier punishment, but simply because the occasion for the behavior would otherwise be lacking.³⁶

Thus, according to Skinner, there is a legitimate mode of discourse which conveys a unique kind of prescientific "knowledge." Literary language and response are uniquely "subjective" and aesthetic in comparison with scientific language.

As in literature, the effects of religion and ritual are also emotional, subjective, and, perhaps, "existential." In the operant view these "emotional" effects serve as the reinforcement for the continuation of the religious response to reality. But one can object from a religious point of view to an exclusively scientific explanation of religious interpretation. As William James might say, there is more to religion than its patterns of maintenance; the emotional effects of religion are

not limited to a reinforcing role. Skinner appears to allow for this possibility in holding that a certain kind of aesthetic appreciation is transmitted ("elicited") by literary language. Skinner's view of literature as providing a "unique" understanding of the world may also under certain conditions allow for possible religious understanding. Such may become possible if religious language, like aesthetic and literary language, can be understood to have its own prescientific sphere of meaning and communication.³⁷ Indeed, the metaphor has a special relevance to the imaginative character of both religious and literary expression that sharply distinguishes the status of such expression from literal, scientific description of physical reality. A literary description, just like a religious vision of behavior, does not provide an effective "practical" understanding; its nature is more "subjective," and the sources of its meaning are found in the audience's emotional experience of everyday life.

Summing up, one may conclude that while Skinner pays little attention to the religious as religious experience and interpretation, his system certainly does not necessarily preclude them. His objection to the religious stems from its identification with (1) aversive control and (2) mythical explanation of reality. This objection follows from his inadequate definition of religion in terms of the religious agency. However, his treatment of imaginative and literary expression, although clearly regarded by him as secondary to science, would appear to allow for a certain kind of relevance in the use of such expression to elicit experiences such as "appreciating a rainbow" or being challenged by a parable.

A "LIMITATION" OF SKINNER

In concluding this essay, I wish to characterize what most humanists would certainly regard as a limitation in Skinner's thinking with respect to the human person and value orientation. Skinner believes that no personally compelling reason can be given for commitment to the survival of humanity. In response to the question of why anyone should care about his culture, Skinner says that there is no particular reason. If our culture has not already convinced us that it is in our best interest to work for its survival, "so much the worse for [our] culture."³⁸ By itself such a rationale can hardly form a persuasive basis for cultural commitment.³⁹ The statement that the culture will fare better if one cares about it is a descriptive one and does not of itself ensure that one *will* care. The person must become convinced that it will be worthwhile to do so. The obvious weakness of Skinner's curious response ("so much the worse for your culture") derives from his attempt to avoid the significance of this personal aspect of "com-

mitment." It would seem immensely difficult to become adequately motivated to develop a life-style consistent with cultural survival unless one recognized a personal stake of some sort or another in that survival.

In some instances Skinner appears to suggest that "good and evil" are immediately and intuitively known and, hence, that "caring" is instinctive. In *Walden II* he writes: "Of course, I know nothing about your course in ethics,' Frazier said, 'but the philosopher in search of a rational basis for deciding what is good has always reminded me of the centipede trying to decide how to walk. Simply go ahead and walk! We all know what's good, until we stop to think about it. For example, is there any doubt that health is better than sickness?'"⁴⁰ Skinner in this case probably assumes that in some such way we instinctively care for the survival of our culture. However, in *Beyond Freedom and Dignity* he proposes an operant translation as a scientific explanation of how value orientation is achieved:

"You should (you ought to) tell the truth" is a value judgment to the extent that it refers to reinforcing contingencies. We might translate it as follows: "if you are reinforced by the approval of your fellow men, you will be reinforced when you tell the truth." The value is to be found in the social contingencies maintained for purposes of control. . . . The behaviors classified as good or bad and right or wrong are not due to goodness or badness, or a good or bad character, or a knowledge of right and wrong; they are due to contingencies involving a great variety of reinforcers.⁴¹

The ambivalence in Skinner's position makes it difficult to determine whether he assumes without question or proposes to explain in operant terms what may be understood as "commitment." Some humanistic thinkers have not failed to notice that at times Skinner seems to go beyond description to assume the role of advocate. The charge has been made that such advocacy is not consistent with his scientific perspective. Skinner has not resolved the dilemma posed for him by these humanists. He admits that as a scientific psychologist he cannot offer a convincing reason for caring about our survival. And yet Skinner obviously does care—enough to try to show us how we might utilize some powerful psychological principles in attaining a few of our sought-after goals.

NOTES

1. B. F. Skinner, *Walden II* (New York: Macmillan Co., 1948). "Much of the argument goes beyond the established facts. I am concerned with interpretation rather than prediction and control. . . . Speculation is necessary, in fact, to devise methods which

will bring a subject matter under better control" (B. F. Skinner, *About Behaviorism* [New York: Alfred A. Knopf, 1974], p. 19).

2. B. F. Skinner, *Beyond Freedom and Dignity* (New York: Alfred A. Knopf, 1971); *Verbal Behavior* (New York: Appleton-Century-Crofts, 1957).

3. For an examination of the "framework of operant behaviorist psychology," see B. F. Skinner, *Science and Human Behavior* (New York: Macmillan Co., 1953), and James G. Holland and B. F. Skinner, *The Analysis of Behavior: A Program for Self-Instruction* (New York: McGraw-Hill Book Co., 1961).

4. See his "Introduction" to *About Behaviorism*, pp. 3–8.

5. Noam Chomsky, "The Case against B. F. Skinner," *New York Review of Books* 17, no. 5 (1971): 18–24. Skinner has remarked in response to Chomsky that "he doesn't know what I am talking about and for some reason is unable to understand it" (B. F. Skinner, "I Have Been Misunderstood . . .," *Center Magazine* [March–April 1972], p. 63). Kenneth MacCorkquodale examined Chomsky's earlier analysis of Skinner's *Verbal Behavior* and concluded that his methodological criticisms were based on ignorance of "much that is central to an understanding, application, and assessment of Skinner's position" (Kenneth MacCorkquodale, "On Chomsky's Review of Skinner's *Verbal Behavior*," *Journal for the Experimental Analysis of Behavior* 13 (1970): 98; furthermore, "Chomsky did not grasp the differences between Skinnerian and Watsonian-Hullian behaviorism, and his criticisms, although stylistically effective, were mostly irrelevant to *Verbal Behavior*" (Kenneth MacCorkquodale, "B. F. Skinner's *Verbal Behavior*: A Retrospective Appreciation," *Journal for the Experimental Analysis of Behavior* 12 [1969]: 841). In his review of *Beyond Freedom and Dignity* Chomsky appears to have overcome for the most part the effects of confusing Watsonian with Skinnerian behaviorism. Yet he distorts Skinner's use of "reinforcement" (see pp. 22–23). A major difference between Watsonianism and Skinnerianism is that Watson conceived of all behavior as fitting within the "S-R" framework. All behaviors were held to be reflexlike in that each behavior constitutes a response (R) elicited by a prior determinative stimulus (S). However, this paradigm is applicable only to a limited class of reflex behaviors—largely autonomic and internal in nature. Skinner believes that most significant behaviors fall in a class called "voluntary," "purposive," or "operant." The consequences of a behavior are the determining element rather than a prior eliciting stimulus. In ordinary language, the "reason" or "cause" for any behavior is not to be found in a prior stimulus situation but in its consequences.

6. Richard Rubenstein, "Books," *Psychology Today* (September 1971), p. 96.

7. Among these I include Brewster Smith's review, even though he clearly objects to Skinner's "limited concept of cause" ("The Scientists' Bookshelf," *American Scientist* [January–February 1972], pp. 80–81).

8. Arnold Toynbee, "*Beyond Freedom and Dignity*: 'An Uneasy Feeling of Unreality,'" *Center Magazine* (March–April 1972), p. 60.

9. This obstacle to understanding may also be the major reason why the more familiar Freudian and humanistic psychologists have been found to be less problematical for intensive examination by those concerned with religious issues.

10. B. F. Skinner, *Contingencies of Reinforcement* (New York: Appleton-Century-Crofts, 1969), p. 48.

11. "The disastrous results of common sense in the management of human behavior are evident in every walk of life, from international affairs to the care of a baby, and we shall continue to be inept in all these fields until a scientific analysis clarifies advantages of a more effective technology" (Skinner, *About Behaviorism*, p. 234).

12. Skinner says that he does not intend to argue for a "metaphysical" or "philosophical" resolution to this or other problems raised by a science of behavior. He believes that such discussion fails to engage the practical issues in which he is most interested: "You can criticize the adequacy of my behavioral analysis if you like, but you cannot challenge it on the ground of faulty metaphysics because it is not metaphysical analysis. . . . I am not concerned about those who think that I am being amateurish as a metaphysician, because I am not engaging in metaphysics. I am looking for a behavior analysis" (Skinner, "I Have Been Misunderstood," p. 64).

13. Who is to do the controlling? is the question immediately asked. As Skinner indicates in *Walden II*, he appears to believe that society could be controlled by an elite of experts. Skinner says that control already exists in the hands of an elite—the politicians, the priests, and the psychotherapists—who are not necessarily experts in human behavior.

14. Skinner believes that the major behavioral problems in culture relate to food, sex, and aggression. These behaviors are proving to be troublesome rather than adaptive for cultural survival. Our singular capacities for food reinforcement lead to overeating and emphasis on sweet foods. Our capacity to be strongly reinforced by aggressive behaviors gets us into continuous trouble, and sexual capacities have led to threats of overpopulation. A leisure-time culture must ensure that these three aspects are effectively dealt with, or they may come to dominate leisure-time activities along with other “inconsequential reinforcers.” Damaging behaviors can be controlled through programming and breaking down into small steps sequences of behaviors that lead to final reinforcing consequences. We must ensure that aggressive behavior will no longer be reinforced in our culture and that the desired reinforcers of normally aggressive actions are made contingent on socially desired ones such as cooperative or “loving” behavior.

15. This paradigm for behavior change is used in “operant” behavior modification programs.

16. See Skinner, *Contingencies of Reinforcement* (n. 10 above).

17. “Token economy” experiments have demonstrated that when reinforcers are provided “noncontingently” or “freely” upon demand, productive behaviors break down, evidences of reversions to former “illnesses” appear, and dissatisfactions are expressed. The psychiatric ward in which an experiment of this type was carried out returned to “normalcy.” However, with the reinstitution of the “token system,” in which reinforcers had to be earned, productive behaviors returned and greater interest and satisfaction in work were reported. This seemingly supports Skinner’s opinion that people need to be creatively productive in order to be happy. See Teodoro Ayllon and Nathan Azrin, *The Token Economy* (New York: Appleton-Century-Crofts, 1968), chap. 8 (“Evaluation of the Overall Reinforcement Procedures”), pp. 186–99.

18. “Behavioral repertoire” refers to all the potential actions at one’s disposal. Experiments with “extinction procedures” demonstrate that behaviors which are consistently nonreinforced gradually disappear from the “behavioral repertoire.”

19. For example, a person *chooses* to sit down at the dinner table not because he has “made a choice” but because in the past such a choice, indicated by the behavior of approaching the dinner table and seating oneself, has been followed by the reinforcing consequence of eating.

20. Skinner alleges that the nature of cultural evolution in having brought us to this “intentional” level of existence demands that we take active responsibility for the future evolution of humanity.

21. The letter of Robert Frost to Skinner can be found in the *Selected Letters of Robert Frost*, ed. Lawrance Thompson (New York: Holt, Rinehart & Winston, 1964), pp. 326–27.

22. B. F. Skinner, “B. F. Skinner . . . An Autobiography,” in *Festschrift for B. F. Skinner*, ed. P. B. Dews (New York: Appleton-Century-Crofts, 1970), p. 7.

23. Skinner describes *Walden II* as a “venture in self-therapy, in which I was struggling to reconcile two aspects of my own behavior represented by Burriss and Frazier” (“An Autobiography,” p. 13).

24. “The expression of that interest in the world which is *science* in the deepest sense . . . may be a casual interest in current affairs or in literature or the controlled and creative efforts of the laboratory—in any case it represents the unnecessary and pleasurable selective exploration of nature” (Skinner, *Walden II*, p. 160).

25. Skinner, “An Autobiography,” p. 19.

26. Fred S. Keller, a colleague of Skinner, is currently connected with the psychology department of Georgetown University. Skinner dedicated his *Science and Human Behavior* to Keller. The information on Keller comes from his essay, “Psychology at Har-

vard (1926–1931): A Reminiscence,” in *Festschrift*, p. 33. Other affinities listed by Keller are: protestations of compulsory “physical education,” being out of step with fellow students, and being mildly “un-American.”

27. Skinner, “An Autobiography,” pp. 3–4, 16–18.

28. Skinner, *Science and Human Behavior* (n. 3 above), p. 352.

29. *Ibid.*, p. 358.

30. *Ibid.*, pp. 354–55.

31. B. F. Skinner, *B. F. Skinner: The Man and His Ideas*, ed. Richard I. Evans (New York: E. P. Dutton & Co., 1968), p. 32.

32. Skinner, *Walden II*, p. 199.

33. “No ritual, no dalliance with the supernatural. Just an enjoyable experience, in part aesthetic, in part intellectual. Now what else does organized religion provide?” (*ibid.*, p. 200).

34. Skinner, *Verbal Behavior* (n. 2 above), p. 99.

35. Skinner, *Beyond Freedom and Dignity* (n. 2 above), p. 213.

36. Skinner, *Verbal Behavior*, pp. 396–97.

37. Paul Ricoeur believes that with certain provisos religious language may be understood as a variety of poetic expression. As such, religious language in its disclosure of existence is originative, imaginative, or figurative rather than conceptual. This information on Ricoeur comes from Ricoeur’s lecture, “The Specificity of Religious Language” (mimeographed [University of Chicago, 1973]), used in a seminar on hermeneutics.

38. Skinner, *Contingencies of Reinforcement* (n. 10 above), p. 40.

39. Skinner has admitted that “cultural survival is a very weak value” (“I Have Been Misunderstood” [n. 5 above], pp. 64–65).

40. Skinner, *Walden II*, p. 159.

41. Skinner, *Beyond Freedom and Dignity*, pp. 112–13.