

Walden Two Follow-Up. News From Nowhere

The Behavior Analyst

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SOCIETY FOR THE ADVANCEMENT OF BEHAVIOR ANALYSIS

News from Nowhere, 1984

B. F. Skinner
Harvard University

My title may have led you to think that I am going to talk about books. News from Nowhere is a nineteenth-century utopia written by William Morris, the inventor of the Morris chair, an example of which graced every college dormitory room in my day. A comment would be appropriate because this is a centennial. Just one hundred years ago, Morris founded the Socialist League. It was socialism with a fairly small "s," the utopian socialism of St. Simon, Fourier, and Robert Owen. Seven years later he pictured an idyllic life under socialism in his book. The other book you may have expected me to talk about is, of course, Nineteen Eighty-Four, the twentieth-century dystopia by George Orwell. It describes what can happen to socialism no matter how well intentioned its origin. It is not very much like News from Nowhere. But I am not going to talk about books. My title simply means that in this year of 1984 I bring you news from a different nowhere, or rather I am asking an old friend to do so.

My name is Burris. I live in an experimental community called Walden Two. In 1948 I published an account of how I discovered that community and came to join it. I have been living there ever since. I am told that you may be interested in hearing something of what has happened there - particularly, about a man who joined the community in 1950.

I had noticed a newcomer to Walden Two, in part because he seemed to be noticing me. He was tall and thin and growing a beard that was still in a rather moth-eaten stage. One morning as I was having breakfast he brought his tray to my table and said, "May I?"

"Yes, of course," I said, and he put the tray down.

"I'm going back for a cup of coffee. May I take your cup and top it up?" I said that would be very good of him.

He brought the cups back to the table, sat down, and held out his hand.

"My name is Blair," he said. "You are Burris?" I said I was. "You are the official historian of Walden Two - am I right?"

"Well, not official. Mr. Frazier doesn't think much of history."

"But unofficially," he said, "you must keep some kind of record." I admitted that I did. "Good. That's enough. I am hoping to join Walden Two. I have an appointment with the Admissions Committee this morning. I'll tell them most of what they want to know, but there is one thing I prefer to keep to myself. Yet I feel it ought to be on the record. May I ask you to keep a confidence?" I said I saw no reason why I should not. "Good. The fact is that in order to join Walden Two I have had to kill a man."

"Oh, wait!" I said. "That's not fair. I'm not a therapist or priest - you had no right to ask me to keep that kind of confidence." I was quite angry.

He laughed. "It's not quite the way it sounds." He drew out his wallet and started to take something from it. But then, holding one corner of the wallet by thumb and forefinger, he let it fall open. It looked a little like the skin of a small animal. "I shall enjoy throwing that away," he said. Then he took a clipping from the wallet and handed it to me. On it he had written "Times, London, January 22, 1950." It began: "DEATH OF GEORGE ORWELL. Eric Arthur Blair, better known to millions as George Orwell, the author of *Animal Farm* and *Nineteen Eighty-Four*, died yesterday of tuberculosis"

I stared at the man across the table.

"You are George Orwell?"

"No!" he said, laughing. "I was. But, you see (he pointed to the clipping), I've killed him. A body was found missing from another ward in the hospital. I had left. I learned that kind of trick in the Spanish War." [Page 5][Page 6]

"You faked your death? But why?"

"Orwell was an unhappy man. A bitter man. Have you read 'Such Were the Joys'—about his frightful schooling? Have you read *Down and Out in Paris* or *Keep the Aspidistra Flying*—how awful it was to be poor? Have you read *Animal Farm* or *Nineteen Eighty-Four*—the specter of the totalitarian state? He had no hope. No reason to live."

"And so you killed him. But why come here?"

"I read your book, and I saw something that I thought you and Frazier had missed. I came to tell you how to do a better job, but I like what I see and I've decided to stay, if you'll take me. I was looking for a chance to live a happy life, and I may have found it. So here I am. And now I have another favor to ask." I looked at him, a bit worried. "Take me to your leader."

The old cliché disturbed me. He meant Frazier, of course. Frazier had founded *Walden Two* and was still living there, but he was far from a leader. He had concealed his part in *Walden Two* as far as possible. He not only disliked history; he buried it. He was no longer a Planner. Anyone less like a leader would be hard to find.

Of course I took Blair to meet Frazier, and the discussions that followed covered a period of more than twenty-five years. Somehow I managed to be present at most of them and took notes. At first I would hurry back to my room to put down all I could remember, but eventually I carried a notebook. Later, when pocket recorders were available, I often used one. I think I can guarantee the accuracy of what follows.

What had impressed Blair and brought him to *Walden Two* was the lack of any institutionalized government, religion, or economic system. That had been the dream of nineteenth-century anarchism, but it had gone wrong. Evidently it had gone right in *Walden Two*.

"You are the perfect anarchist," Blair said to Frazier one day.

"I'll agree," said Frazier, "if you don't mean a man with a bomb. People have never liked their governments for very long and have changed them, but they have only put other governments in their place. It wasn't until the nineteenth century that anyone seriously

proposed that governments simply be disbanded. How to disband them was the problem.

"The early anarchists wanted a peaceful change. I think you can even say that for Marx. Arrange for a just distribution of the proceeds, and voluntary agreement could replace authority. A temporary dictatorship might be needed, but it would wither away. But then the terrorists took over. Destroy the present government whether or not you have anything to put in its place. Anarchy no longer meant the absence of government; it meant disorder, chaos."

"But not in *Walden Two*," said Blair, "What's the secret?"

"You simply turn from one kind of law to another."

"I'm afraid you'll have to explain that," said Blair.

"Human behavior is selected by its consequences. At first it must have been selected by the physical environment, but later people could talk about consequences. They could give advice and warn each other of danger. They could avoid exposure to the consequences by taking the advice of those who had been exposed to them. Eventually they formulated rules of action, and that led to the laws of science. It was Francis Bacon who pointed to a similarity with the laws of government, but he missed an important difference.

"The laws of governments and religions are useful. They tell members of a group how to avoid punishment (without being punished), and they tell the group how to punish consistently. The great codifiers of social practices have been justly honored. It was the administration of laws that caused trouble. Those who found themselves in possession of administrative power could never resist using it to their own aggrandizement. To justify themselves, they invented myths - like the divine right of kings, priests, or [\[Page 7\]](#) the possessors of wealth. The effect was wholesale exploitation.

"In the nineteenth century something else began to be understood. The problem was not only exploitation. People were behaving more and more by following rule and less and less because of the natural consequences of their behavior. It was Max Weber who pointed to the bureaucratization needed to enforce rules and Karl Marx who emphasized the alienation of the worker from the natural consequences of his work.

"At the start of his career, Marx got it right. The working classes were suffering more from alienation than from exploitation, as bad as that may have been. Of course Marx put it all in terms of feelings (he was not a full-fledged behaviorist, alas), but it is easy enough to put it right. It all comes down to consequences - to contingencies of reinforcement. The worker who is said to feel 'powerless' has nothing to show for his work but his wages, nothing that is his that he has done. The worker who is said to feel 'estranged' from society is spending too much of his day untouched by social contingencies. What it means to say that the worker is 'depersonalized' is a little harder to explain. A person or self is a repertoire of behavior. The repertoire shaped and maintained by daily life is rich and varied. The repertoire shaped and maintained by a factory is small and stale. It does not compose much of a person.

"Marx made all that clear but dropped it when he began to emphasize exploitation. Exploitation was a better ground to fight on. It is not hard to persuade a worker that he is

underpaid. It is harder to rouse him to action because he feels estranged, powerless, or depersonalized. The issue of exploitation could also be dramatized-as a struggle between capitalist and worker, between bourgeoisie and proletariat.

"Ironically, the socialistic or communistic systems that corrected for exploitation with a more equitable distribution of the proceeds left alienation unchanged. The proletariat in a communist country may share the wealth, but the on-the-job contingencies are no better than in capitalist countries and probably worse. They breed just as much alienation. Walden Two is state ownership without a state. Its members are not employed because there is no employer. They come into direct contact with the world, as people did before there were governments, religions, or industries. They have immediate reasons for behaving-and they behave in ways which not only support their way of life but give them the sense of satisfaction that comes from effective action."

"Marx took off from Hegel," said Blair, "but for Hegel alienation was something that went on inside a person. That doesn't seem to make sense."

"It makes perfectly good sense," said Frazier, with his usual bluntness. "When people began to talk about their behavior one person could ask another 'What are you doing?,' 'Why are you doing that?,' 'How do you feel?.' Those verbal contingencies gave rise to consciousness or self-knowledge. Hegel said that alienation followed when 'consciousness divided itself into subject and object.' A behaviorist would say that alienation follows when a person is divided into two selves - an observing and an observed. Psychiatrists use the word alienation in more or less that way. All behavior begins as unconscious -the product of contingencies of reinforcement. We share unconscious behavior with the other animals. Behavior becomes conscious when society gives us reasons to examine ourselves. There is also a division between controlling and controlled selves. Behavior shaped and maintained by its immediate consequences is not only unconscious, it is unrational, unreasoned, unplanned. Social contingencies breed self-management. We make our own rules and follow them. Those are extraordinary gains, but they nevertheless alienate us from immediate contact with the great genetic reinforcers or the conditioned reinforcers based on them."

"That still doesn't sound like Marx's alienation," said Blair.

"Marx was talking about a special set [Page 8] of cultural practices, a special set of reasons for behaving - namely, wages. They defer the natural reinforcing consequences of craftsmanship, if they do not destroy them."

In the 1960s Frazier and Blair watched another version of anarchism-the so-called hippie movement. Young people turned against government. They broke laws, trashed, and called the police "pigs." ("Make love not war' was almost right," said Frazier. "But it should have been 'Make love not laws' ".) They turned from the religion of their families to uninstitutionalized Eastern mysticism. They turned against industry, begging or living on checks from home. Like the nineteenth-century anarchists, they proposed to destroy the present system before deciding what to put in its place. To Frazier's irritation, they formed "communities" of a sort. They had their gurus: Norman O. Brown with his Freudian permissiveness and Herbert Marcuse with his mixture of Freud and Marx. Frazier may

have been jealous, but when I told him that sales of Walden Two were soaring, he was annoyed. "There is no connection whatsoever," he insisted.

Blair contended that there were vestiges of government in Walden Two. "Maybe it's the world of Walden Two that controls its citizens and not a government, religion, or industry, but it nevertheless controls," he said. "And control for the good of everyone is still control. Where do you find personal freedom or a sense of personal worth or dignity?"

"Freedom and dignity are feelings. They are collateral products of contingencies of reinforcement. Under negative reinforcement we do what we have to do, and we don't feel free. We may not feel free under positive reinforcement, either, if it is so powerful that it keeps us from doing things we should like to do. The slave obviously does not feel free, but the worker does not feel free either if he must work so long and hard that he has no time or energy for anything else. In Walden Two we behave under relatively undemanding contingencies of positive reinforcement, and we feel free.

"And we also get credit. The contingencies may be maintained by the community, and a behavioral engineer may have designed them and changed them from time to time in the light of experience, but the consequences are nonetheless directly reinforcing. There is no alienating intermediary; hence, we enjoy a strong feeling of personal dignity or worth."

Frazier had a curious contempt for labor-saving devices. "Naturally we avoid exhausting or dangerous work if we can," he said, "but we go too far. There is something in operant conditioning that is important to health and happiness even when the consequences are not very reinforcing or even slightly aversive."

"But it's human nature to avoid work," said Blair.

"And if it is, we know why," said Frazier. "Escape from unnecessary work must once have had great survival value. When you must spend all day hunting or gathering, there is a point in saving energy when you can. The mistake is to save it all. Slaves were early labor-saving devices but difficult to keep in good working order. Servants replaced them but proved too costly for most people. Now we have machines and robots. They are costly, too, and often unreliable, but technology has brought them within reach of many of us. We no longer wash dishes, we use a dishwasher."

"You enjoy washing dishes?"

"Perhaps I don't enjoy it, but I get something out of it that I lose when I put dishes in a dishwasher. It's what Carlyle meant when he said that all work is noble, even cotton-spinning."

"Surely you are not going to defend the mills of nineteenth-century England," said Blair. "There was nothing noble about tending a spinning or weaving machine fourteen hours a day."

"It was the fourteen hours that was wrong," said Frazier. "Many women enjoy knitting, and I am sure I would too if our culture permitted. Many people [Page 9] own looms and work on them with pleasure. There is something about washing and drying a dish that is missing when you put it in a dishwasher. Wash it by hand, and you see it come clean. You have done something. You have had an effect."

"You couldn't have told that to George Orwell," said Blair. "He knew what it meant to be a plongeur in a French restaurant."

"But now you are talking about quantities again. I'm talking about washing a few dishes. A few cherries are reinforcing, but if you must eat a bushel you will find the last quart hard work."

"But labor-saving devices let people do more important things."

"How many of them do? Those who use labor-saving devices - slaves, servants, or machines according to the century - we call the leisure class. What has it got to show for itself by way of better things?"

"Only all the literature, art, and music in the world," said Blair, with some satisfaction. "It has released writers, artists, and composers from less productive labor."

"But the writers, artists, and composers were not at leisure. You have identified the kinds of things that may justly replace the labor of everyday life, and if you will agree that labor-saving devices are to be used only if the labor saved is put to such uses, I'm with you. But what have the leisure classes actually done? They have turned to the variable-ratio schedules of gambling systems to give them something to do; they have sought an ersatz sense of achievement in alcohol and drugs; and they have over-consumed the basic genetic reinforcers of food, sex, and violence. And what is more ridiculous than the way they try to replace the labor they have saved and find the sense of achievement they have lost? Instead of washing a dish, they do exercises. Instead of spinning, they jog."

"I am afraid I'd still like to be a member of the leisure class," said Blair. "But come to think of it, I am. Aren't the members of Walden Two a leisure class? Only four hours of work a day on the average! Weren't you thinking of saving labor when you designed the community?"

Frazier was always annoyed when anyone mentioned his role in founding Walden Two. "Walden Two," he said rather harshly, "is an environment in which people just naturally do the things they need to do to maintain themselves (with something to spare for the future) and treat each other well, and then just naturally do a hundred other things they enjoy doing because they do not have to do them. And when I say natural," he added hurriedly, "I simply mean positively reinforced. The labor we save in Walden Two is the unnecessary labor forced upon people by a badly-designed environment."

Frazier was concerned about another way in which people were alienated from the reinforcing consequences of their behavior. "Welfare is a form of leisure," he said, "and it raises the same problems. Helping those who cannot help themselves strengthens a culture, but helping those who can help themselves destroys it. Everyone agrees that people on welfare would be better off if they were working. That is often a complaint about exploitation - the exploitation of the taxpayer - but the real harm is done to the recipient. Welfare payments are not effectively contingent on behavior. The health-giving side of operant reinforcement is missing. The helping professions have been slow to learn that lesson. Nursing homes find it easier to do things for old people than to let them do things for themselves, and by destroying the all-important contingencies of reinforcement, they

make old people sick and miserable. At the heart of doing anything is something worth keeping."

The schools in Walden Two were no longer as I had described them. Teaching machines had come into use—at first rather crude mechanical devices, but then computers. Blair resisted the change at every step. [Page 10]

"You are violating your own principles," he said. "Could anything be more contrived and artificial than the reinforcement of operating a machine? You've returned to the factory. Students should be free to discover things for themselves."

"The greatest mistake you can make in designing education," said Frazier, "is to listen to John Dewey and the cognitive psychologists who have taken him up and talk about discovery. Of course we learn by discovery. Everything the species knows was discovered by somebody. But no one of us can discover more than the minutest fraction of human knowledge. The rest of what we know we must uncover. It is there to be learned and should be learned as easily and quickly as possible."

"With the evolution of verbal behavior instruction could take the place of direct contact with the world. The real contingencies take over after instruction has taken place. Meanwhile something else is needed. For centuries that something was punishment. The student learned - or else. Programmed instruction turned to the genuine mediating reinforcers of success and progress. A good program first induces students to engage in behavior. The behavior is said to be 'primed.' For a time, if fractional help is needed, the behavior is 'prompted.' Prompts are then carefully removed or 'vanished.' What is left is behavior on its own! Q.E.D." He looked straight at Blair. "Quod erat demonstrandum," he said, and then, as if explaining, "Which was to be demonstrated."

I was embarrassed. Blair had had a classical education, and from time to time dropped a Latin phrase or two. He did not need help. Latin was not one of Frazier's strong points. He was showing off. Blair capped it nicely. "I'd prefer Q.E.I.," he said. "Quod erat inveniendum - which was to be discovered."

Frazier moved quickly to another point. "The difference between programmed education and the factory," he said, "is the difference between a system that must withdraw its reinforcers before it can claim success and one that must maintain its contingencies forever. Government, religion, and capital can never relax. They not only shape new behavior, they must keep the contingencies in force. Education and counseling shape behavior, but they dismantle the contingencies as soon as the behavior is taken over by daily life."

"When Burriss first came here, he saw some of our children driving pegs into the ground and running strings from one peg to another. As Burriss put it, Euclid was getting a first-hand experimental check. (Wasn't it Gauss who did something like that, triangulating points on three hill tops to see if the angles in a triangle really added up to 180 degrees?) That is all very fine, but it won't get you very far into Euclid. A good program will take the average ten- or twelve-year old through Euclid's Elements in a breeze. Burriss was impressed by one of our temporary divagations."

One day Frazier was having tea with a child when Blair came up waving a magazine.

"Look at this," he said. "Somebody is giving us some help." He would not have broken in so impolitely if Frazier had been talking with an older person, and Frazier was annoyed. He turned back to the child.

"Pulchrum in parvo," Blair said, insisting upon Frazier's attention.

Frazier was doubly annoyed. Latin again. He took the magazine, glanced at it, and handed it back. "Or, as the rest of us would say, 'Small is beautiful.'"

"Right," said Blair. "You must read it." It was a review of Schumacher's little book on the advantages of systems of moderate size, and the so-called intermediate technologies he was inventing for use in the Third World. I happened to be with Blair when Frazier met us the next day.

"Communities," he said, speaking very carefully, "have always been multum in parvo, if not pulchrum." (I suspect he had been looking in a Latin dictionary.) "They are miniature states. They must be small if they are to be experimental. Where else is one to start who is not the head of a [Page 11] government, religion, or industry? Where has any science started, or any art or music? The trick is to stay small. Walden Two works because it is small. Cities need police forces just because they are big, because face-to-face control of decent personal behavior is impossible. Why be nice to any one in a big city? Why not do shabby work if your next job will come from an ad in the Yellow Pages? Nothing but an organized punitive system will replace face-to-face censure and criticism, and nothing at all can replace commendation and gratitude."

Frazier began to talk about the Scandinavian countries. Sweden in particular had achieved an almost perfect socialism. Income taxes were around fifty percent, but no one seemed to mind. In return, education was free, from kindergarten through graduate school. There was free health care for everyone, and special housing for the elderly. In short, just about everything anyone needed. But something was wrong.

"It is the acme of rule-governed social behavior," Frazier said. "The man who pays his income tax can look at the happy school-child, the industrious college student, the comfortable aging couple, and say, 'I'm helping them,' but he will never hear them say thank you. He is alienated from the product of his social behavior. He does nothing that has any immediate social consequences.

"The chances are that the contingencies in his work are also contrived. No one will ever correct the alienation of the worker from the product of his labor in a large factory, no matter who owns it. Like the communist countries, Sweden has not made the 'social good' a strong reinforcer. You have to see a good, hold it in your hand, as citizens of Walden Two do so many times a day."

The library sent for Schumacher's book, and Frazier was as enthusiastic as Blair, not because nothing but intermediate technologies would help developing countries but because nothing else would keep the production of goods a reinforcing consequence for the worker.

Small was also beautiful, Frazier pointed out, in the study of behavior. A laboratory

setting was a small sample of daily life. Philosophers and psychologists had begun with massive samples. A few, like James and Freud, had had some success, but only because they were lucky. Happy accidents had given them glimpses of order. You could not expect to get very far that way. "Small animals in small spaces," Frazier exclaimed, patting Schumacher's book, "and beauty is truth, truth beauty." Blair knew nothing about the research Frazier was talking about, and, as a matter of fact, never learned about it.

Frazier, himself, had no qualms about inferring general principles from large things. "In the world as a whole," he said one day, "small may or may not be beautiful, but big is certainly ugly. We are getting on toward a population of 5 billion people. What can you do about that?"

"You certainly weren't doing very much," said Blair, "when your young women were having babies before they were twenty. You were adding an extra generation every hundred years. I remember how shocked I was when I read Burris's book."

"Burris was wrong, of course," said Frazier. "We were already changing. It is all very well to say that those who are intelligent enough to control their numbers should not do so because more intelligent people are needed, but if we are to design a way of life that will solve the problems of the world at large, it must be a way that stabilizes the population. Even when we were breeding too soon, Walden Two was eliminating all the spurious reasons for having children - the social pressures, the need for children as helpers in the family, accidental conception... and giving everyone who loves children a chance to be with them without breeding them."

"Small is not so beautiful," Blair said another time, "when it means sameness. Too much of the same thing, too many of the same faces. I like to travel. If I had not travelled fairly widely, would I be as happy as I am now?"

"You say you like to travel. Travel [Page 12] agencies and airlines should be sued for false claims. Who ever sees what their putative customers see in the advertisements? Of course there are still some beautiful cities, with beautiful buildings and museums, but it is no great sacrifice to learn about them from films or books. And anyway all that is beautiful in the world is being destroyed by your travellers - the natural beauty of our parklands, ancient buildings eaten away by the fumes of buses. How much better it would be if we spent our time and money on making our own world beautiful. And when I say beautiful, all I mean is that it will be the kind of place you go to and stay in just because it reinforces going to and staying in. Our fossil fuels would last hundreds of years longer if people stopped moving about."

Frazier was launched on a favorite theme. "Walden Two has solved most of the other problems facing the world today," he said. "We consume only as much as we need to maintain a friendly, productive, enjoyable life. We waste nothing; everything is recycled. We dress for the weather, allowing the weather indoors to range widely. We scarcely pollute the environment at all. We avoid hazardous wastes. We do it all and still enjoy our lives. Somehow or other the whole world must learn that secret or we are lost."

"But isn't the whole world going to be a different problem?" said Blair. "How long will it let you alone? You're hurting too many powerful people. Eventually you'll be attacked."

"And so we start building nuclear weapons? I grant you we can't do that. That is not an intermediate technology."

"I don't want to build weapons, either," said Blair. "But what can you do to stop others from building them?"

"Not much, I'll admit. But it would be helpful to find out why they build them. That means finding out why they have so many children, why they consume irreplaceable resources at such a fantastic rate, why they allow themselves to make the world nearly unliveable. Find that out and you will know why, in one last desperate struggle for a decent place to live and something to live with, they will turn to the ultimate horror of a nuclear war."

That was not enough for Blair. He could not see how Frazier's ideology, as he insisted on calling it, could remedy matters. In the 1970s he became quite feeble and perhaps for that reason more pessimistic. He gave up his room and moved to special quarters for those who needed care. When Frazier and I visited him there one day, we found him sitting up in bed. He surprised us by talking about George Orwell. He had mentioned him occasionally and always, of course, as if he were another person, but now he seemed to be pulling himself together.

"When Orwell wrote Nineteen Eightyfour," he said, "he thought that sooner or later the world would be pretty much as he described it. He could not see any hope. It was all too obvious. Put government, religion, and capital together and you have the monstrous state, controlling practically all of what you behaviorists call the reinforcers. Of course it will use them for its own aggrandizement. It has no reason to do otherwise, and that is that.

"I came to Walden Two looking for something else, but have I found it? You have taught me too much about human behavior. Human nature, you say, is out of date. It's the product of a world that in many ways was much more immediately threatening than it is today. In that less hospitable world, for example, organisms evolved in such a way that they ate as much as possible whenever they could, especially salt and sugar, which were then in very short supply. And just because that became human nature, we now produce and eat far more than we need, especially the salty and sweet things that taste so good, and we ruin our health and are slowly exhausting the arable land of the world.

"And when, from time to time, famine and pestilence decimated the population, it was important that the species, like other species, breed as often as possible. To make sure that that would happen, [Page 13] sexual contact became highly reinforcing, as you put it. And now, as a result, we are filling up the world at a fantastic rate.

"In a precarious world, too, those who survived and reproduced their kind were those who fought well, and they fought best if signs of the damage they inflicted reinforced successful blows. Signs of damage became powerful reinforcers, and now a massive aggression threatens the world. And that's a threat for which evolution could not prepare us.

"The very human nature that once barely led to our survival will soon end our survival once and for all. Do you know that sonnet of Shakespeare's that begins, 'That time of year

thou mayst in me behold'? It is an old man speaking to his young lover, but it could as well be the earth speaking to us all ---

“That time of year thou mayst in me behold
When yellow leaves, or none, or few, do hang
Upon those boughs which shake against the cold,
Bare ruined choirs, where late the sweet birds sang.
In me thou seest the twilight of such day
As after sunset fadeth in the west
Which by and by black night doth take away,
Death's second self, that seals up all in rest.
In me thou seest the glowing of such fire
That on the ashes of his youth doth lie,
As the deathbed whereon it must expire,
Consum'd with that which it was nourish'd by.”

Blair paused. "Consum'd with that which it was nourished by.' Could you say it better? We are to be destroyed by the fabulous genetic endowment that has been the glory of the species. And what a different reading you can give the last two lines of that sonnet:

“This thou perceiv'st, which makes thy love more strong,
To love that well, which thou must leave ere long.”

We see that we are about to perish and we love life allthemore - a life that our stronger loving will all the sooner bring to an end." With that, Blair turned his face to the wall, and Frazier and I quietly left.

Once outside, Frazier said, "Always the man of letters! He lacks the scientific spirit. Love of life! Doesn't he see that he is still talking about our genetic susceptibilities to reinforcement? Maybe we can't change them, but we can build a world in which they will cause far less trouble." He groaned quietly and threw up his arms in a mock gesture of despair. I knew the sign. He was about to say something he had said a thousand times, something of which he was utterly convinced, yet something he had to say again and again because it was so little understood. I switched on my pocket recorder.

As Frazier so often did, he came to the point from an unexpected direction. "There is a spider that uses its silk to make, not a web, but a net. The spider hangs just above the ground, stretching the net with its legs. When an unsuspecting insect passes underneath, the spider wraps it in the net with lightning speed. It eats the insect and the net, recycling the silk. We must assume that that is all a product of natural selection, but it could not have occurred in its present form as a variation. It is the result of a long series of variations and contingencies of survival in which simple versions gradually became more complex.

"The spider can be caught in a net, too - a net made by a member of a different species, with behavior acquired through a different process of selection, operant conditioning. But in a single lifetime no one person could make a net without help. Too many variations would have to occur and be selected by their reinforcing consequences. Instead, net-making evolved as a cultural practice, in a third kind of selection. Just as operant

conditioning takes us beyond the range of behavior due to natural selection, so the evolution of cultural practices takes us beyond operant conditioning.

"The point is that net-making did not simply evolve through the accumulation of lucky variations. Instead, people talked about nets, how they were made, and why they worked and how they could be made to work better. Cultural practices evolve, but they are also designed. Can anyone doubt that when a science of behavior tells us how to design better practices - and I don't mean better nations, reli- [Page 14] gions, or business enterprises-we can deal with human nature adequately?"

"But I think what was bothering Blair," I said, "is whether there is time. Can we create a culture that has the chance of a future before our present cultures destroy us?"

Frazier stopped. He seemed to be trying to remember something he had intended to say, as if I had interrupted him. Then he said quickly, "I think there's time," and began to walk again.

I laid my hand on his arm and stopped him. "Do you really believe that?", I said. He pulled his arm free and walked on.

We did not see Blair again. He died the next day. His death was announced to the community, and Frazier and I, as his closest friends, scattered his ashes in one of the orchards. I had kept Blair's secret, but two or three times Frazier had called him Orwell, and I assumed he had guessed. But as we left the orchard, he said, as if it had just occurred to him, "I wonder who he really was."

Since hearing Burris's story, I have done a bit of checking. Orwell died of tuberculosis in a hospital in London in January 1950. There is no doubt about that. His will directed that his body be "buried (not cremated) according to the rites of the Church of England in the nearest convenient cemetery." He was not a religious man, and his request for a church burial was granted only under considerable public pressure. Who it was who turned up in Walden Two later that year pretending to be Eric Arthur Blair or how well you may feel he played the role of George Orwell I am not prepared to say. But his exchanges with Frazier, especially those concerning the role of contingencies of reinforcement in daily life, seemed interesting and worthwhile, and that is why I asked Mr. Burris to bring them to you.

