

B. F. Skinner

CUMULATIVE
RECORD

THIRD
EDITION

A Selection of Papers

APPLETON-CENTURY-CROFTS
EDUCATIONAL DIVISION
MEREDITH CORPORATION



A Lecture on "Having" a Poem

What I am going to say has the curious property of illustrating itself. The quotation marks in my title are intended to suggest that there is a sense in which having a poem is like having a baby, and in that sense I am in labor; I am having a lecture. In it I intend to raise the question of whether I am responsible for what I am saying, whether I am actually originating anything, and to what extent I deserve credit or blame. That is one issue in *Beyond Freedom and Dignity*,¹ but since I am having a verbal baby, the argument goes back to an earlier book.

In his review of *Beyond Freedom and Dignity* in *The New York Times*,² Christopher Lehmann-Haupt begins with two sentences dear to the hearts of my publishers, and they have not allowed them to become hidden under a bushel. But later in the review, unhappy about some of the implications, he tries to fault me. "Well then," he writes, "what about the most serious (and best advertised) attack that has been leveled against behaviorism in recent years—namely, Noam Chomsky's attempts to demonstrate man's innate linguistic powers, which began with Chomsky's famous review of Skinner's book *Verbal Behavior*. Skinner says nothing explicit on the matter in *Beyond Freedom and Dignity*. Indeed, Chomsky's name is never brought up (which seems disingenuous on Skinner's part). Have we got him there?"

Let me tell you about Chomsky. I published *Verbal Behavior* in 1957. In 1958 I received a 55-page typewritten review by someone I had never heard of named Noam Chomsky. I read half a dozen pages, saw that it missed the point of my book, and went no further. In 1959, I received a reprint from the journal *Language*.³ It was the review I had already seen, now reduced to 32 pages in type, and again I put it aside. But then, of

This lecture was given at the Poetry Center in New York City on October 13, 1971.

¹ *Beyond Freedom and Dignity*. New York: Knopf, 1971.

² *The New York Times*, September 22, 1971.

³ *Language*, 1959, 35, 26-58.

course, Chomsky's star began to rise. Generative grammar became the thing—and a very big thing it seemed to be. Linguists have always managed to make their discoveries earthshaking. In one decade everything seems to hinge on semantics, in another decade on the analysis of the phoneme. In the sixties, it was grammar and syntax, and Chomsky's review began to be widely cited and reprinted and became, in fact, much better known than my book.

Eventually the question was asked, why had I not answered Chomsky? My reasons, I am afraid, show a lack of character. In the first place I should have had to read the review, and I found its tone distasteful. It was not really a review of my book but of what Chomsky took, erroneously, to be my position. I should also have had to bone up on generative grammar, which was not my field, and to do a good job I should have had to go into structuralism, a theory which Chomsky, like Claude Lévi-Strauss, acquired from Roman Jakobson. According to the structuralists we are to explain human behavior by discovering its organizing principles, paying little or no attention to the circumstances under which it occurs. If anything beyond structure is needed by way of explanation, it is to be found in a creative mind—Lévi-Strauss's savage mind or Chomsky's innate rules of grammar. (Compare the recent analysis of Shakespeare's sonnet "Th' expence of spirit" by Jakobson and Lawrence Jones⁴ with my earlier analysis in *Verbal Behavior*. Where Jakobson and Jones confine themselves to the structure or pattern of the poem as it appears to the reader, I used the same features to illustrate the behavioral processes of formal and thematic strengthening which, to put it roughly, made words available to the poet as he wrote.) No doubt I was shirking a responsibility in not replying to Chomsky, and I am glad an answer has now been supplied by Kenneth MacCorquodale in the *Journal of the Experimental Analysis of Behavior*.⁵

A few years ago *Newsweek* magazine carried the disagreement further, going beyond linguistics and structuralism to the philosophy of the seventeenth century. I was said to be a modern disciple of John Locke, for whom the mind began as a clean slate or *tabula rasa* and who thought that knowledge was acquired only from experience, while Chomsky was said to represent Descartes, the rationalist, who was not sure he existed until he thought about it. *Newsweek* suggested that the battle was going my way, and the reaction by the generative grammarians was so violent that the magazine found it necessary to publish four pro-Chomsky letters. Each

⁴ *Shakespeare's Verbal Art in "Th' Expence of Spirit."* The Hague: Mouton, 1970.

⁵ *Journal of the Experimental Analysis of Behavior*, 1970, 13, 83-99.

one repeated a common misunderstanding of my position. One implied that I was a stimulus-response psychologist (which I am not) and another that I think people are very much like pigeons (which I do not). One had at least a touch of wit. Going back to our supposed seventeenth-century progenitors, the writer advised *Newsweek* to "Locke up Skinner and give Chomsky Descartes blanche." (But Chomsky cannot use a *carte blanche*, of course; it is too much like a *tabula rasa*.)

Ironically, Chomsky was later invited to give the John Locke Lectures at Oxford. I was at Cambridge University at the time, and the BBC thought it would be interesting if we were to discuss our differences on television. I don't know what excuse Chomsky gave, but I agreed to participate only if the moderator could guarantee equal time. I suggested that we use chess clocks. My clock would be running when I was talking, and Chomsky's when he was talking, and in that way I planned to have the last fifteen or twenty minutes to myself. The BBC thought that my suggestion would not make for a very interesting program.

Verbal Behavior was criticized in a different way by an old friend, I. A. Richards, whose interest in the field goes back, of course, to the *Meaning of Meaning*. For nearly forty years Ivor Richards and I have respected each other while disagreeing rather violently. I have never been able to understand why he feels that the works of Coleridge make an important contribution to our understanding of human behavior, and he has never been able to understand why I feel the same way about pigeons. He has at times been deeply distressed. He once asked me to lecture to his freshman course in General Education. I turned up at the appointed hour, he made a few announcements, and then he said, "I now present the Devil," and sat down. And I had not yet published *Verbal Behavior*, that outrageous invasion of Richards' territory which might indeed have borne the subtitle, *The Meaninglessness of Meaning*.

When my book appeared, and in turn Chomsky's review, Ivor Richards sent me a poem. It was prefaced by two quotations, one from my book and one from the review, and it proceeded to document the extraordinary extent to which each of us believed that he was absolutely right. The poem began:

Confidence with confidence oppose.
Knowledge ducks under in between two No's
So firmly uttered. Look again. You'll see
Uncertainty beside uncertainty.

Some unacknowledged uncertainties were then cited and analyzed.

A few months later I received a second poem. It was called "Verbal Behaviour" and began as follows:

No sense in fretting to be off the ground,
There's never hurry whither we are bound,
Where all's behaviour—and the rest is naught,
Not even rest, but void beyond all thought.

It went on to argue that behaviorism will mean the death of the individual, the end of man's divine image of himself. The behaviorist contends that

The Angels are a sketch
Tbey made long since to comfort the sore wretch
Cast out of Paradise he knew not why
To start his long climb back into the sky.

But he will never reach paradise again because the behaviorist will tear off his wings, crying, to set him free:

These gleaming sails are but the flattering means,
(Theologic gear, Pythagorean beans!)
Whereby grubs flit and feed and lay their eggs,
By metaphor, beyond the reach of legs.
No psyche more! Homunculus-theory, out!
Verbal behaviour's all it's all about.

It seemed to me that this had gone far enough, and so I replied—in kind—as follows:

For Ivor Richards

Yes, "all's behavior—and the rest is naught."

And thus compressed
Into "the rest
Of all,"
A thought
Is surely neither bad nor wrong.

Or right or good?
No, no.
Define
And thus expunge
The *ought*,
The *should!*
Nothing is so
(See History.)

Let not the strong
Be cozened
By *Is* and *Isn't*,
Was and *Wasn't*.
Truth's to be sought
In *Does* and *Doesn't*.

Decline
To be.

And call
Him neither best
Nor blessed
Who wrought
That silly jest,
The Fall.

(It was a Plunge.)

A few days later Ivor Richards phoned. Why not publish our poems? I had no objection, and so he sent them to an American magazine. The editor agreed that they were interesting but that, since we were both at Harvard, it was a sort of in-house joke which might not appeal to their West Coast readers. Stephen Spender, however, had no West Coast readers to worry about, and our poems were eventually published in *Encounter*.⁶

That is the only poem I have published since college, and it must serve as my only credential in discussing the present topic. I am unwilling to let it stand without comment, and so I offer the following exegesis, as it might be written by some future candidate for a Ph.D. in English literature.

The poet begins with a quotation from his friend's poem, picking up a slight redundancy. If all's behavior, then of course the rest is naught. And it is perhaps just as well, since a thought reduced to nothing can scarcely be bad or wrong. But what about the possibility that it might be right or good? No, logical positivism will take care of that. By defining our values we expunge them.

A new theme then appears, perhaps best stated in the immortal words of Henry Ford, "History is bunk," but here extended to the present as well as the past, as the poet attacks existentialism as well as the uses of history. The theme is broached in the contemptuous lines

Nothing is so
(See History.)

⁶ *Encounter*, Nov. 1962.

but developed more explicitly when we are warned not to be deceived by *Is* and *Isn't* (so much for the Existentialists) or *Was* and *Wasn't* (so much for the Historians). Then follows that stirring behavioristic manifesto:

Truth's to be sought
In *Does* and *Doesn't*.

At this point, almost as if exhausted, the poet enters upon a new mood. Behaviorism has squeezed thought to death and with it consciousness and mind. George Kateb made the point later in his review of *Beyond Freedom and Dignity* in the *Atlantic Monthly*,⁷ insisting that "Skinner foresees and condones the atrophy of consciousness." But since foreseeing and condoning are conscious acts, the behaviorist is engaged in a kind of intellectual suicide. To use a strangely inept expression, mind is to die by its own hand. The position is stated with stunning economy:

Decline
To be.

(We note here a certain infelicity. *To be* is a verb, and as such can be conjugated but not declined. But we must remember that an intentional suicide is likely to be distraught and an unintentional one at least careless. One thinks of Ophelia. The semantic blemish therefore simply adds to the tone of the passage.)

The theme of suicide becomes clear when the poet turns to his friend's reference to the fallen Angel and warns us against accepting uncritically "that silly jest, The Fall." (Note in passing that *silly* is cognate with the German *selig*, meaning holy or sacred.) "Fall" is wrong because it suggests chance. (Chance, of course, comes from the Latin *cadere* meaning to fall—the fall of a die or penny—and is it entirely irrelevant that "jest" is etymologically related to "cast," as in casting dice?) Make no mistake; the Fall was not an accident. It was a deliberate plunge.

Thus might some beknighted graduate student of the future write in search of partial fulfillment. Whether or not he will thus establish my competence in discussing poetry, I cannot say. If not, I must fall back upon that stock reply of the critic when the playwright who has received a bad review points out that the critic has never written a play, and the critic replies, "Neither have I laid an egg, but I am a better judge of an omelet than any hen." It is a stale and musty joke, and I should not allow it to injure the tone of my lecture if it did not serve the important function of bringing me to my point. I am to compare having a poem with having a baby, and it will do no harm to start with a lower class of living things. Samuel Butler suggested the comparison years ago when he said that a poet writes a poem as a hen lays an egg, and both feel better afterwards.

But there are other points of similarity, and on one of them Butler

⁷ *Atlantic Monthly*, Oct. 1971.

built a whole philosophy of purposive evolution. The statement was current in early post-Darwinism days that "a hen is only an egg's way of making another egg." It is not, of course, a question of which comes first, though that is not entirely irrelevant. The issue is who *does* what, who *acts* to produce something and therefore deserves credit. Must we give the hen credit for the egg or the egg for the hen? Possibly it does not matter, since no one is seriously interested in defending the rights of hen or egg, but something of the same sort can be said about a poet, and then it does matter. Does the poet create, originate, initiate the thing called a poem, or is his behavior merely the product of his genetic and environmental histories?

I raised that question a number of years ago with a distinguished poet at a conference at Columbia University. I was just finishing *Verbal Behavior* and could not resist summarizing my position. I thought it was possible to account for verbal behavior in terms of the history of the speaker, without reference to ideas, meanings, propositions, and the like. The poet stopped me at once. He could not agree. "That leaves no place for me as a poet," he said, and he would not discuss the matter further. It was a casual remark which, I am sure, he has long since forgotten, and I should hesitate to identify him if he had not recently published something along the same lines.

When Jerome Weisner was recently inaugurated as President of Massachusetts Institute of Technology, Archibald MacLeish read a poem.⁸ He praised Dr. Weisner as:

A good man in a time when men are
scarce, when the intelligent foregather,
follow each other around in the fog like
sheep, bleat in the rain, complain
because Godot never comes; because
all life is a tragic absurdity—Sisyphus
sweating away at his rock, and the rock
won't; because freedom and dignity . . .

Oh, weep, they say, for freedom and dignity!
You're not free: it's your grandfather's itch you're scratching.
You have no dignity: you're not a man,
you're a rat in a vat of rewards and punishments,
you think you've chosen the rewards, you haven't:
the rewards have chosen you.

Aye! Weep!

⁸ *Boston Globe*, October 9, 1971.

I am just paranoid enough to believe that he is alluding to *Beyond Freedom and Dignity*. In any case, he sums up the main issue rather effectively: "You think you've chosen the rewards; you haven't. The rewards have chosen you." To put it more broadly, a person does not act upon the environment, perceiving it and deciding what to do about it; the environment acts upon him, determining that he will perceive it and act in special ways. George Eliot glimpsed the issue: "Our deeds determine us, as much as we determine our deeds," though she did not understand *how* we are determined by our deeds. Something does seem to be taken away from the poet when his behavior is traced to his genetic and personal histories. Only a person who truly initiates his behavior can claim that he is free to do so and that he deserves credit for any achievement. If the environment is the initiating force, he is not free, and the environment must get the credit.

The issue will be clearer if we turn to a biological parallel—moving from the oviparous hen to the viviparous human mother. When we say that a woman "bears" a child, we suggest little by way of creative achievement. The verb refers to carrying the fetus to term. The expression "gives birth" goes little further; a bit of a platonic idea, birth, is captured by the mother and given to the baby, which then becomes born. We usually say simply that a woman "has" a baby where "has" means little more than possess. To have a baby is to come into possession of it. The woman who does so is then a mother, and the child is her child. But what is the nature of her contribution? She is not responsible for the skin color, eye color, strength, size, intelligence, talents, or any other feature of her baby. She gave it half its genes, but she got those from *her* parents. She could, of course, have damaged the baby. She could have aborted it. She could have caught rubella at the wrong time or taken drugs, and as a result the baby would have been defective. *But she made no positive contribution.*

A biologist has no difficulty in describing the role of the mother. She is a place, a locus in which a very important biological process takes place. She supplies protection, warmth, and nourishment, but she does not design the baby who profits from them. The poet is also a locus, a place in which certain genetic and environmental causes come together to have a common effect. Unlike a mother, the poet has access to his poem during gestation. He may tinker with it. A poem seldom makes its appearance in a completed form. Bits and pieces *occur* to the poet, who rejects or allows them to stand, and who puts them together to *compose* a poem. But they come from his past history, verbal and otherwise, and he has had to learn how to put them together. The act of composition is no more an act of creation than "having" the bits and pieces composed.

But can this interpretation be correct if a poem is unquestionably new? Certainly the plays of Shakespeare did not exist until he wrote them. Possibly all their parts could be traced by an omniscient scholar to Shakespeare's verbal and nonverbal histories, but he must have served some additional function. How otherwise are we to explain the creation of something new?

The answer is again to be found in biology. A little more than a hundred years ago the act of creation was debated for a very different reason. The living things on the surface of the earth show a fantastic variety—far beyond the variety in the works of Shakespeare—and they had long been attributed to a creative Mind. The anatomy of the hand, for example, was taken as evidence of a prior design. And just as we are told today that a behavioral analysis cannot explain the "potentially infinite" number of sentences composable by a speaker, so it was argued that no physical or biological process could explain the potentially infinite number of living things on the surface of the earth. (Curiously enough the creative behavior invoked by way of explanation was verbal: "In the beginning was the word . . .," supplemented no doubt by a *generative* grammar.)

The key term in Darwin's title is Origin. Novelty could be explained without appeal to prior design if random changes in structure were selected by their consequences. It was the contingencies of survival which created new forms. Selection is a special kind of causality, much less conspicuous than the push-pull causality of nineteenth-century physics, and Darwin's discovery may have appeared so late in the history of human thought for that reason. The selective action of the consequences of behavior was also overlooked for a long time. It was not until the seventeenth century that any important initiating action by the environment was recognized. People acted upon the world, but the world did not act upon them. The first evidence to the contrary was of the conspicuous push-pull kind. Descartes's (*pace* Chomsky) theoretical anticipation of the reflex and the reflex physiology of the nineteenth century gave rise to a stimulus-response psychology in which behavior was said to be triggered by the environment. There is no room in such a formulation for a more important function. When a person acts, the consequences may strengthen his tendency to act in the same way again. The Law of Effect, formulated nearly three quarters of a century ago by Edward L. Thorndike, owed a great deal to Darwinian theory, and it raised very similar issues. It is not some prior purpose, intention, or act of will which accounts for novel behavior; it is the "contingencies of reinforcement." (Among the behaviors thus explained are techniques of self-management, once attributed to "higher mental processes," which figure in the gestation of new topographies.)

The poet often knows that some part of his history is contributing to the poem he is writing. He may, for example, reject a phrase because he sees that he has borrowed it from something he has read. But it is quite impossible for him to be aware of all his history, and it is in this sense that he does not know where his behavior comes from. Having a poem, like having a baby, is in large part a matter of exploration and discovery, and both poet and mother are often surprised by what they produce. And because the poet is not aware of the origins of his behavior, he is likely to attribute it to a creative mind, an "unconscious" mind, perhaps, or a mind belonging to someone else—to a muse, for example, whom he has invoked to come and write his poem for him.

A person produces a poem and a woman produces a baby, and we call the person a poet and the woman a mother. Both are essential as loci in which vestiges of the past come together in certain combinations. The process is creative in the sense that the products are new. Writing a poem is the sort of thing men and women do as men and women, having a baby is the sort of thing a woman does as a woman, and laying an egg is the sort of thing a hen does as a hen. To deny a creative contribution does not destroy man *qua* man or woman *qua* woman any more than Butler's phrase destroys hen *qua* hen. There is no threat to the essential humanity of man, the muliebrity of woman, or the gallity of *Gallus gallus*.

What is threatened, of course, is the autonomy of the poet. The autonomous is the uncaused, and the uncaused is miraculous, and the miraculous is God. For the second time in a little more than a century a theory of selection by consequences is threatening a traditional belief in a creative mind. And is it not rather strange that although we have abandoned that belief with respect to the creation of the world, we fight so desperately to preserve it with respect to the creation of a poem?

But is there anything wrong with a supportive myth? Why not continue to believe in our creative powers if the belief gives us satisfaction? The answer lies in the future of poetry. To accept a wrong explanation because it flatters us is to run the risk of missing a right one—one which in the long run may offer more by way of "satisfaction." Poets know all too well how long a sheet of paper remains a *carte blanche*. To wait for genius or a genie is to make a virtue of ignorance. If poetry is a good thing, if we want more of it and better, and if writing poems is a rewarding experience, then we should look afresh at its sources.

Perhaps the future of poetry is not that important, but I have been using a poem simply as an example. I could have developed the same theme in art, music, fiction, scholarship, science, invention—in short, wherever we

speak of *original* behavior. We say that we "have" ideas and again in the simple sense of coming into possession of them. An idea "occurs to us" or "comes to mind." And if for idea we read "the behavior said to express an idea," we come no closer to an act of creation. We "have" behavior, as the etymology of the word itself makes clear. It "occurs to us" to act in a particular way, and it is not any prior intention, purpose, or plan which disposes us to do so. By analyzing the genetic and individual histories responsible for our behavior, we may learn how to be more original. The task is not to think of new forms of behavior but to create an environment in which they are likely to occur.

Something of the sort has happened in the evolution of cultures. Over the centuries men and women have built a world in which they behave much more effectively than in a natural environment, but they have not done so by deliberate design. A culture evolves when new practices arise which make it more likely to survive. We have reached a stage in which our culture induces some of its members to be concerned for its survival. A kind of deliberate design is then possible, and a scientific analysis is obviously helpful. We can build a world in which men and women will be better poets, better artists, better composers, better novelists, better scholars, better scientists—in a word, better people. We can, in short, "have" a better world.

And that is why I am not much disturbed by the question with which George Kateb concludes his review of *Beyond Freedom and Dignity*. He is attacking my utopianism, and he asks, "Does Skinner not see that only silly geese lay golden eggs?" The question brings us back to the oviparous again, but it does not matter, for the essential issue is raised by all living things. It is characteristic of the evolution of a species, as it is of the acquisition of behavior and of the evolution of a culture, that ineffective forms give rise to effective. Perhaps a goose is silly if, because she lays a golden egg, she gets the ax; but, silly or not, she has laid a golden egg. And what if that egg hatches a golden goose? There, in an eggshell, is the great promise of evolutionary theory. A silly goose, like Butler's hen, is simply the way in which an egg produces a *better* egg.

And now my labor is over. I have had my lecture. I have no sense of fatherhood. If my genetic and personal histories had been different, I should have come into possession of a different lecture. If I deserve any credit at all, it is simply for having served as a place in which certain processes could take place. I shall interpret your polite applause in that light.