

HOW TO DISCOVER WHAT YOU HAVE TO SAY A TALK TO STUDENTS

Skinner, B.F. (1981). How to discover what you have to say – A talk to students. *The Behavior Analyst*. 4, 1 - 7

My title will serve as an outline. It begins with “How to” and this is a “How to” talk. It is about a problem we all face, and the solution I propose is an example about verbal self management, using my *Verbal Behavior* (1957) as the basis of a technology. At issue is how we can manage our own verbal behavior more effectively. (I may note in passing that psycholinguistics, a very different kind of analysis, largely structural and developmental, has given rise to no comparable technology, in part because it so often devotes itself to the listener rather than the speaker.)

Verbal behavior begins almost always in spoken form. Even when we write, we usually speak first, either overtly or covertly. What goes down on paper is then a kind of self-dictation. I am concerned here only with written behavior and even so with only a special kind, the kind of writing at the heart of a paper, a thesis or a book in a field such as the analysis of behavior. What such writing is “about” is hard to say-indeed, that is just the problem. Certain complex circumstances call for verbal action. You have a sheet of paper and a pen: what happens next? How do you arrive at the best possible account?

Do I mean how are you to “think” about those circumstances, to “have ideas” about them? Yes, if those terms are properly defined. In the last chapter of *Verbal Behavior*, I argue that thinking is simply behaving, and it may not be too misleading to say that verbal responses do not express ideas but are the ideas themselves. They are what “occur to us” as we consider a set of circumstances. If I have forgotten the key to my house and “it occurs to me” to look under the mat, it is not an idea that has occurred to me but the behavior of looking, and it occurs because under similar circumstances I have found a key under the mat. What verbal responses “express” are not preverbal ideas but the past history and present circumstances of the speaker. But how are we to arrive at the most effective expression? How can we behave verbally in a way that is most relevant to a problem at hand?

It is hard to give a “how to” talk without posing as an authority. I hasten to say that I know that I could write better than I do, but I also know that I could write worse. Over the years I believe I have analyzed my verbal behavior to my advantage. What distresses me is that I should have done so so late. Possibly some of what I have learned may help you at an earlier age.

The next word in my title is “discover”. If it suggests that verbal behavior lurks inside us waiting to be uncovered, it is a bad term. We do not really “search our

memory” for forgotten names. Verbal behavior, like all behavior, is not inside the speaker or writer before it appears. True, I have argued that most behavior, is *emitted* rather than elicited as in a reflex, but we also say that light is emitted from a hot filament, although it *was not in* the filament in the form of light. Perhaps a better title would have been “How to succeed in saying what you have to say” (“how to say it” suggests style book advice).

A first step is to put yourself in the best possible condition for behaving verbally. La Mettrie thought he had supporting evidence for his contention that man was a machine in the fact that he could not think clearly when he was ill. (Freud on the other hand said that he could write only when experiencing a certain discomfort). Certainly many writers have testified to the importance of diet, exercise, and rest. Descartes, one of the heroes of psychology, said that he slept ten hours every night and “never employed more than a few hours a year at those thoughts which engage the understanding... I have consecrated all the rest of my life to relaxation and rest”. Good physical condition is relevant to all kinds of effective behavior but particularly to that subtle form we call verbal:

Imagine that you are to play a piano concerto tomorrow night with a symphony orchestra. What will you do between now and then? You will get to bed early for a good night’s rest. Tomorrow morning you may practice a little but not too much. During the day you will eat lightly, take a nap, and in other ways try to put yourself in the best possible condition for your performance in the evening.

Thinking effectively about a complex set of circumstances is more demanding than playing a piano, yet how often do you prepare yourself to do so in a similar way? Too often you sit down to think after everything else has been done. You are encouraged to do so by the cognitive metaphor of thinking as the expression of ideas. Are there, the writer is simply a reporter.

What about drugs? Alcohol? Tobacco? Marijuana? There are authentic cases of their productive effects in poetry and fiction, but very little in serious thinking. Tacitus said that the Germans made their decisions when drunk but acted upon them when sober, and Herodotus said the same of the Persians. In other words, it may be possible to solve an intellectual problem when drunk or stoned, but only if the solution is reviewed soberly. In spite of much talk of expanded consciousness, good examples of the advantages of drugs are still lacking.

So much for the condition of your body. Equally important are the conditions in which the behavior occurs. A convenient place is important. It should have all the facilities needed for the execution of writing. Pens, typewriters, recorders, files, books, a comfortable desk and chair. It should be a pleasant and smell good. Your clothing should be comfortable. Since the place is to take control of a particular kind of behavior, you should do nothing else there at any time.

It is helpful to write always at the same time of day. Scheduled obligations often raise problems, but an hour or two can almost always be in the early morning – when the telephone never rings and no one knocks at the door. And it is important that you write something, regardless of quantity, every day. As the Romans put it, *Nulla dies sine linea* – No day without a line. (They were speaking of lines drawn by artists, but the rule applies as well to the writer).

As a result of all this, the setting almost automatically evokes verbal behavior. No warmup is needed. A circadian rhythm develops which is extremely powerful. At certain time every day, you will be highly disposed to engage in serious verbal behavior. You will find evidence of this when traveling to other times zones, when a strong tendency to engage in serious verbal behavior appears at the usual time, though it is now a different time by the clock.

It may be a mistake to try to do too much at first. Such a situation only slowly acquires control. It is enough to begin with short sessions, perhaps 15 minutes a day. And do not look for instant quality. Stendhal once remarked: “If when I was young I had been willing to talk about wanting to be a writer, some sensible person might have said to me: ‘Write for two hours every day, genius or not.’ That would have saved ten years of my life, stupidly wasted in waiting to become a genius”.

How should you spend the rest of the day? Usually you will have little choice, for other demands must be met. But there is usually home leisure time, and a fundamental rule is not to try to do more writing. You may tease out a few more words, but you will pay the price the next morning. The Greeks spoke of *eutrapelia* – the productive use of leisure. A little experimentation will reveal the kinds of diversion which maximize your subsequent productivity.

There is an exception to the rule against writing elsewhere. Verbal behavior may occur to you at other times of day, and it is important to put it down in lasting form. A notebook or a pocket recorder is a kind of portable study. Something you see, hear, or read sets off something relevant, and you must catch it on the wing. Jotting down a brief reminder to develop the point later is seldom enough, because the conditions under which it occurred to you are the best conditions for writing a further account. A longer note written at the time will often develop into something that would be lost if the writing were postponed. The first thing that occurs to you may not be the most important response with respect to a given situation, and writing a note gives other verbal behavior a chance to emerge.

As notes accumulate they can be classified and rearranged, and they will supply some of the most important materials for your papers or books. One of the most widely reprinted and translated papers of mine, “Freedom and the Control of Men” (Skinner, 1955-56), was first written almost entirely in the form of notes. When I was asked for a paper on that theme, I found that it was practically written. Notes

which are left over can of course be published in a notebook, as I have recently found (Skinner, 1980).

The metaphor of discovery redeems itself at this point. When you construct the best possible conditions for the production of verbal behavior and have provided for catching occasional verbal responses on the wing, you are often *surprised* by what turns up. There is no way in which you can see all your verbal behavior before you emit it.

I am not talking about how *to find* something to say. The easiest way to do that is to collect experiences, as by moving about in the world and by reading and listening to what others say. A college education is largely a process of collecting in that sense. And so, of course, is exploration, research, and a full exposure to daily life. Nor am I talking about the production of ideas through the permutations and combinations of other material. A very different kind of idea is generated, for example, by playing with contradictions or antimonies. The young Marx was addicted "...the world's becoming philosophical is at the same time philosophy's becoming wordily..."

"That the relational is real is proved even in the contradiction of irrational reality that is at all points the opposite of what it proclaims, and proclaims the opposite of what it is". "History has long enough been resolved into superstition, but now we can resolved into superstition into history". I daresay Marx thought he was discovering something worth saying, and the verbal play suggests profundity, but it is a dangerous practice.

The next word is "You". Who is the *you* who has something to say? You are, of course, a member of the human species, absolutely unique genetically unless you have an identical twin. You also have a personal history which is absolutely unique. Your identity depends upon the coherence of that history. More than one history in one lifetime leads to multiple selves, no one of which can be said to be the real you. The writer of fiction profits from the multiplicity of selves in the invention of character.

We also display different selves when we are fresh or fatigued, loving or angry, and so on. But it still meaningful to ask what you have to say about a given topic as an individual. The *you* that you discover is the *you* that exists over a period of time. By reviewing what you have already written, going over notes, reworking a manuscript, you keep your verbal behavior fresh in (not your mind!) your history, and you are then most likely to say all that you have to say with respect to a given situation or topic.

Obviously, it will not be simply what you have read or heard. It is easy to get books out of the books of other people, but they will not be your books.

The last three words of my title are “have to say”, and they have at least three meanings. The first is the verbal behavior I have just identified – the thing we refer to when we ask a person “what do you have to say to that”. We are simply asking “What is your verbal behavior with respect to that?”.

A second meaning is what *you have* to say in the sense of *must say*. It is usually easy to distinguish between the things we want to do and those we *have to* do to avoid the consequences of not doing them, where “have to” refers to aversive control. A familiar example is the pause in conversation which must be filled and which leads, too often, to verbal behavior about trivia – *the weather, the latest news, what someone is wearing*-. It is also the occasion for hasty and ungrammatical speech, or nonsense, or revealing slips. Much the same aversive pressure is felt in completing an hour’s lecture when one has prematurely exhausted one’s notes, or finishing a paper on time. It is then that we tend to borrow the verbal behavior of others and resort to *clichés* and phrases or sentences which simply stall for time. (“It is interesting to note that...,” “Let us now turn to...”).

The results are not always bad. Many famous writers have worked mostly under aversive pressure. Balzac wrote only when he needed money, Dostoevsky only in return for advances he had received. Aversive control may keep you at work, but what you write will be traceable to other variables if it is any good. Moreover, it is under such conditions that writers report that writing is hell, and if you write primarily to avoid the consequences of not writing, you may find it hard to resist other forms of escape –stopping to get a cup of coffee, needlessly rereading something already written, sharpening pencils, calling it a day.

There may be an aversive element in maintaining the schedule which builds a circadian rhythm. It is not always easy to get up at five o’clock in the morning and start writing. Even though you make the space in which you work so attractive that it reinforces your behavior in going to it, some aversive control may be needed. But other variables must take over if anything worthwhile is written. Positive reinforcement may be as irresistible as negative, but it is more likely to lead you to say what you have to say effectively.

The great generalized reinforcer, money, is usually poorly contingent upon behavior at your desk. It controls too effectively when a writer begins to write only the kinds of things which have sold well. Prestige and fame are also long deferred consequences inadequately contingent upon the production of sentences, but progress toward the completion of a book which may lead to money or prestige and fame may help if it is made clear. Some kind of record of the number of words or pages you write may act as a reinforcing consequence. For years, an electric clock on my desk ran only when the light was on, and I added a point to a cumulative record whenever the clock completed twelve hours. The slope of the curve showed me how much time I was spending each day (and how damaging it

was to go off on a speaking tour!). A simple calculation reinforces that reinforcer. Suppose you are at your desk two hours a day and produce on the average 50 words per hour. That is not much, but it is about 35,000 words a year, and a book every two or three years – which I myself have found reinforcing enough.

Other immediate consequences are more effective in discovering what you have to say. Saying something for the first time that surprises you, clearing up a confusing point, enjoying what you have written as you read it over -these are the things which, in the long run, are most likely to produce verbal behavior which is your own. The best reason for liking what you have written is that it says what *you* have to say.

Your audience as a source of reinforcers is not to be overlooked. As Pascal put it, "There are those who speak well and write badly. The occasion, the audience fires them and draws from them more than they find in themselves without this heat". Writing often suffers when it is not directed toward a particular kind of reader. Just as in writing a letter to a close friend you may find a picture helpful or at least a warm salutation at the head of the letter, so some visible sign of an audience may help. Reading what someone else has said about you sometimes strengthens behavior, since one is seldom at a loss for words in a warm discussion. I once used E. G. Boring's *Physical Dimensions of Consciousness* as an instrument of self-management. I disagreed so violently with the author's position that after reading a page or two I would find my verbal behavior very strong. And one day when I was lecturing to a class but wasn't speaking well, I noticed that a student had brought his parents. My behavior changed dramatically under the influence of that new audience. Searching for good audiences may be worthwhile.

Just as those who write for money may begin to write things that sell rather than what they have to say as individuals, so an audience may have too strong an effect. I once gave what was supposed to be the same lecture to 15 audiences. I used a good group of slides which served as an outline, but I began to abbreviate or drop comments which did not seem to arouse interest and retain everything which brought a clean-cut response or a laugh. Near the end of the series, I had to struggle to say anything worthwhile.

That verbal behavior is sustained by the prevailing contingencies is shown by the fact that writing exhibits many effects of scheduling. Fixed-ratio reinforcement often produces a "snowball effect". The closer one comes to finishing a piece of work, the easier it is to work on it (Where "easy" means that one works without moving to escape or without "forcing oneself" to remain at work). Writing papers, articles, or stories one after the other "for a living" tends to be on a ratio schedule, and the "post-reinforcement pause" takes the form of abulia, or "not being able to get started on something new".

There are many reasons why you may stop writing or “find it difficult” to go on. When something is not going well, when you are not saying anything important, when matters remain as confusing as ever, extinction sets in. You may continue, but only because aversive consequences take over. Punishment in the form of frequent criticism decreases production, a point not recognized by teachers of composition who spend most of their time pointing to the faults in their student’s work (Vargas, 1978).

Satiation also weakens behavior. Many novelists never tell a story before they write it. Just as you cannot tell the same story to the same company a second time (or at least with the same effect!), so you are less likely to get a novel written if you have already told the plot. Enforced silence is a useful practice. Satiation also sets in when one writes more or less to the same affect again and again.

There is also a kind of subject-matter fatigue. One starts write in excellent condition but eventually become sick of the subject. One solution is to work on two subjects at the same time. It is easier to write short sections of two papers during a session than to spend the whole session on one.

A third sense of “have to say” is the heart of the matter. In a paper called “On ‘Having’ a poem” (Skinner, 1972), I compared a poet with a mother. Although the mother bears the child and we call it her child, she is not responsible for any of its features. She gave it half its genes, but she got those from her parents. I argued that the same thing could be said of the poet. Critics who trace the origins and influences of a poem seem to agree, at least to the extent that they can account for features of a poem by pointing to the verbal or non-verbal history of the poet. Samuel Butler’s comment that “A hen is simply an egg’s way of making another egg” holds for the human egg as well and for the poet. A poet is a literary tradition’s way of making more of a literary tradition. (Much the same thing could be said of the scholar. A psychologist is just psychology’s way of making more psychology).

But the mother does make a contribution: She nourishes, protects, and in the end gives birth to the baby, and so does the poet and so does the scholar. There is a process of verbal gestation. Your history as a writer lacks the structure and coherence of the behavior which eventually emerges from it. Sentences and paragraphs are not lurking inside you waiting to be born. You possess some behavior in the form of prefabricated sentences, and may often do little more than utter them as such, possibly with minor changes, but that is not discovering what you have to say.

A new situation may strengthen dozens -possibly hundreds- of verbal responses which have never before been strengthened together at the same time. They may lack organization. Relations among them may be unclear. They will have little effect on the reader who has not had the same history and is not confronted by the

same situation. They must therefore be ordered and interrelated in an effective way. That is what you do as you compose sentences, paragraphs, and at last a book. Only then will your verbal behavior lead to successful action by your readers or to a less active but still behavioral “understanding” of what you are saying.

Verbal Behavior (Skinner, 1957) takes up these stages in order. The first half describes the kinds of verbal operants produced by different contingencies of reinforcement. Although these are more than structures because they have probabilities of reinforcement, they are not assertions. The second half describes how they are fashioned into effective verbal discourse as they are asserted, qualified, denied and so on, in such a way that the reader responds effectively. The writer thus generates sentences as effective sequences of the material emerging upon a given occasion.

I have found the following rules helpful in discovering what one has to say in this sense.

Rule 1. Stay out of prose as long as possible. The verbal behavior evoked by the setting you are writing about does not yet exist in the form of sentences, and if you start by composing sentences, much will be irrelevant to the final product. By composing too early you introduce a certain amount of trash which must later be thrown away. The important parts of what you have to say are more easily manipulated if they have not yet become parts of sentences.

Rule 2. Indicate valid relations among responses by constructing an outline. Very large sheets of paper (say, 22” by 14”) are helpful. Your final verbal product (sentence, paragraph, chapter, book) must be linear -with a bit of branching- but the variables contributing to your behavior are arranged in many dimensions. Numbering the parts of a composition decimally is helpful in making cross-references and temporary indices and in noting connections among parts. As bits of verbal behavior are moved about, valid arrangements will appear and sentences will begin to emerge. It is then time to “go into prose”.

Rule 3. Construct the first prose draft without looking too closely at style. “Full speed ahead, and damn the stylelook.” (How hard that will be depends upon the extent to which aversive control has been used in teaching you to write.) When what you have to say about a given state of affairs exists at last in prose, rewrite as you please, removing unnecessary words, articulating sentences with better connectives, making new rearrangements which seem necessary and so on. At this stage, some advice on style is helpful. I myself read Follett’s *Modern American Usage* straight through every two or three years.

There is an old distinction between ecstatic and euplastic composition. There have been times when ecstatic verbal behavior (impulsive, unreasoned) was particularly admired, because it seemed more genuine, less contrived. In poetry and some

forms of fiction it may be particularly effective. But in writing about a complex subject matter, it is too much to expect that adequate statements will appear fully formed. Neither phylogenically nor ontogenically has verbal behavior evolved to the point at which a complex combination of personal history and a current situation will give rise to a passage having an appropriate effect upon the reader. Only the most skillful “euplastic” (reasoned) management of verbal behavior will suffice.

Possibly I am confessing some special need for crutches. No doubt other people arrive more quickly at effective statements. They do not need to work so hard to say important things. I myself did not need to work so hard when I was younger. I am simply telling you how I succeed in saying what I have to say. Of course I wish I had more to say and that I had said it better, and I wish I could tell you more clearly what I have learned about saying it. But it would be impossible to tell you all you need to know. No two people are alike; your personal histories will lead you to respond in different ways. You will have to work out your own rules. As in any application of a behavioral analysis, the secret of successful verbal self-management is an understanding of what verbal behavior is all about.

REFERENCES

- Follett, Wilson. *Modern American Usage*. New York, 1966.
- Skinner, B. F. Freedom and the control of men. *American Scholar*, Winter 1955-56.
- Skinner, B. F. *Verbal Behavior*. New York, 1957.
- Skinner, B. F. On “having” a poem. *Saturday Review*, July 15, 1972. Reprinted in *Cumulative Record*. New York, 1972.
- Skinner, B. F. *Notebooks*. Englewood Cliffs, N. J., 1980.
- Vargas, J. S. A Behavioral approach to the teaching of composition. *Behavior Analyst*, 1978, 1, 16-24.

EDITOR'S NOTE

The behavior Analyst does not normally publish talks as such. However, because of the didactic nature of this paper, and the possibility of an article sounding presumptuous to other professionals, the “talk” format seemed appropriate. It is an exception of the rule, however, and not the beginning of a new policy.