

# *The Power of Narratives Derives from Evoked Behavior*

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# The Power of Narratives Derives from Evoked Behavior

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**Abstract** The power of stories derives, not from the verbal stimuli themselves, but from the interaction of such stimuli with the on-going idiosyncratic behavior of the listener. This interaction produces behavioral effects that go far beyond what might be expected from a consideration of the narrative as an arrangement of verbal stimuli.

**Keywords** Covert behavior · Narrative · Verbal behavior

Hineline (2018) pointed out that stories play a central role in human affairs. A good story will be told and retold, perhaps indefinitely through time and across cultures. Noting that behavior analysts hitherto have had little to say about the subject, he identified a number of basic processes in narratives that appear to be relevant to the behavior of both speaker and listener. His thesis reminded me of an episode in *Walden Two* in which the narrator reflected on his teaching career:

What distressed me was the clear evidence that my teaching had missed the mark. I could understand why young and irresponsible spirits might forget much of what I had taught them, but I could never reconcile myself to the uncanny precision with which they recalled unimportant details. My visitors, returning at commencement time, would gape with ignorance when I alluded to a field that we had once explored together—or so I thought—but they would gleefully remind me, word for word, of my smart reply to some question from the class or the impromptu digression with which I had once filled out a miscalculated hour. I would have been glad to agree to let them all proceed henceforth in complete ignorance of the science of psychology, if they would forget my opinion of chocolate sodas or the story of the amusing episode on a Spanish streetcar. (Skinner, 1948, p. 6)

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This was a remarkably accurate prediction of my own years behind the podium, and it underscores Hine's point: There is something surprisingly powerful about stories, and this mystery calls for a behavioral explanation.

From a behavior analytic point of view, what do we mean by the “power” of an experience, and what accounts for this putative power? A plausible answer to the first question is, “the extent to which an event leads to an enduring change in one’s repertoire.” Reading *Walden Two* changed my repertoire immediately in the sense that I could summarize it in detail after closing the book. (My college textbooks had no such effect.) But reading the book also had some surprisingly enduring effects as well: It changed the direction of my life. I had been, variously, a geology major, an English major, and a full-time draft dodger, but I promptly dropped all that. I spent the next decade trying to start a “Walden Two” community and the following four decades as an academic behavior analyst. That’s power.

Of course not all narratives have such dramatic effects, nor do all readers respond with comparable enthusiasm to Skinner’s novel, but the anecdote illustrates what I take to be a common experience that, at a minimum, we can recall stories better than dry prose. As a first approximation, then, recall can serve as our index of an enduring behavior change. As for what accounts for the putative power of stories, Hine (2018) has offered an admirable summary of the behavioral processes that appear to be relevant. In what follows I will explore just one point: the role of the repertoire of the reader or listener in our account of the relative power of stories.

What is a story, and what sets it apart from ‘dry prose’? It may be helpful to consider extreme examples: A parlor game in literary circles requires players to compose a story in as few words as possible. The paradigmatic example, beloved of English teachers, is only six words long:

For sale: Baby shoes; never worn.<sup>1</sup>

The surprising power of this vignette arises, not from what has been said, but by what has been left unsaid. It is the reader, not the writer, who fills in the tragic details. It is only because of this behavior on the part of the reader that we can call it a story at all. Notice that the form of the text by itself is not central to its effect:

For sale: Size 11 hiking boots; like new.

Superficially the two notices are equivalent, but the second would earn no points in our parlor game, for it is no story. If we were in the market for used hiking boots we might clip this ad, call the seller, arrange to view them, and so on—a considerable amount of behavior—so what is the difference? The second advertisement evokes practical behavior in the real world, as would a “Road Closed” sign, a dinner menu, or an instruction manual for a chainsaw. Indeed, the first advertisement might evoke no more than similar commercial behavior in a thoughtless person shopping for baby

<sup>1</sup> This line has been attributed to Hemingway, an author noted for his spare prose style, but that too appears to be merely a good story. The true origin is uncertain (Wright, 2014).

shoes, but in the rest of us it evokes vicarious experience: We live the writer's hope, dreams, excitement, and despair.

A story, then, evokes vicarious experiences, free from the constraints of the immediate context. We can come under the spell of powerful vicarious motivating operations arranged by narrators, even as we sit in padded armchairs, warm, well-fed, and safe from peril. Moreover, narrators are equally free from immediate constraints, and the contingencies governing their behavior generally ensure that we are given opportunities to engage in romantic, generous, clever, valiant, and noble ways, albeit covertly and vicariously. It is a mutually reinforcing arrangement.

But as our six-word novel shows, the effect can, and usually does, reach beyond what we might expect from the form of the story itself. It is a mistake to attribute the evocative power of stories exclusively to their status as verbal stimuli. Reading a story—indeed, responding to verbal stimuli generally—evokes a symphony of behavior in which controlling variables become an ever more complex mixture of external stimuli and response-produced stimulation. It is easy to show this by noting the discrepancies between a story and a retelling of that story by a reader. In one demonstration, I asked some students to read the third paragraph of *Great Expectations*:

My first most vivid and broad impression of the identity of things, seems to me to have been gained on a memorable and raw afternoon towards evening. At such a time I found out for certain, that this bleak place overgrown with nettles was the church-yard; and that Philip Pirrip, late of this parish, and also Georgiana wife of the above, were dead and buried; and that Alexander, Bartholomew, Abraham, Tobias, and Roger, infant children of the aforesaid, were also dead and buried; and that the dark flat wilderness beyond the church-yard, intersected with dikes and mounds and gates, with scattered cattle feeding on it, was the marshes; and that the low leaden line beyond was the river; and that the distant savage lair from which the wind was rushing, was the sea; and that the small bundle of shivers growing afraid of it all and beginning to cry, was Pip. (Dickens, 1861, p. 6)

A few minutes later I asked them to write down what they read as completely as possible. Here is one student's retelling:

A little boy is all alone in a graveyard. He finds the graves of his parents and reads the inscriptions on the stones. Next to those graves was a whole row of graves of his brothers and sisters. The whole family died except for him. It's cold and dark. He is all alone. He's afraid, and he starts to cry. His name was Pip.

This is a fair summary of the passage, but notice how much of it was constructed by the reader, not governed by the text itself. The passage does not say that the graves were those of the narrator's parents and siblings, that any of the siblings were girls, that he was the only surviving child, that it was dark, that he was alone, that the narrator himself was Pip, or that Pip was a boy. These responses were apparently under control of the reader's responses to the text, not the text itself. We can only speculate what these responses were, but the rich constructions of our imagination are the whole point of reading for pleasure. Once emitted, such behavior can participate in the stimulus control of subsequent behavior.

The behavior of reading or listening to a story is a highly interactive experience. In a story, successive elements are related thematically, so the behavior evoked by the opening of the story becomes part of the complex of variables controlling our response to the subsequent passages. That is, there is an accumulation of controlling variables as the story progresses, partly from the narration, partly from the behavior of the listener or reader. The richness of these putative interactions make them more effective than the expository prose of standard textbooks.

As a case in point, read the following passage taken at random from the *Encyclopedia Britannica* volume at my elbow. It is from an entry on piezoelectricity, which is an electrical charge induced in certain materials by pressing or bending them:

In zinc sulfide and all other piezoelectric crystals of cubic symmetry, the piezoelectric effect of any mechanical stress can be expressed in terms of the piezoelectric constant relating electric polarization parallel to a cubic axis to strain in the plane perpendicular to this axis (1962, vol. 17, p. 912).

If the reader is like me, he or she would be unable to summarize the passage, even approximately, after a single reading. We could, of course, repeatedly reread the passage until it became a long intraverbal chain, but that simply underscores the poverty of controlling variables: With repetition, control would be transferred from textual stimuli to prior verbal stimuli, but for most of us, there would be few other behavioral events to share stimulus control. Our subsequent recall of the passage would display little of the creative elaboration we saw in the example of recall of the Dickens excerpt.

In contrast, this passage would undoubtedly evoke considerable additional behavior in an expert on piezoelectricity, and these behaviors would take their place in the constellation of variables controlling recall and other subsequent events. In principle, this constellation of behavioral effects could be as powerful and memorable as any story: Perhaps the effect of mechanical stress parallel to an axis of a zinc sulfide crystal resolves a decade-long debate among mineralogists, and someone's tenure hangs in the balance. But the author of an encyclopedia entry cannot create such favorable motivational variables in his or her audience. Story-tellers, on the other hand, are wholly unconstrained in arranging motivation, setting, characters, and plot. In a few words, they can take us to a battlefield, the gallows, a steamy bedroom, a Jurassic swamp, or an imaginary planet.

It follows from the foregoing speculations that narratives are effective only to the extent that they evoke cascades of responding in the listener or reader that go beyond echoic, textual, or intraverbal behavior. The contingencies that govern the behavior of story-tellers usually ensure that stories have such effects, while the contingencies that govern the professional writing of behavior analysts usually ensure that their work has no such effects. Hineline (2018) is surely right that we can do better, and if we wish to expand our influence we should take seriously the evocative power of a good story.

#### **Compliance with Ethical Standards**

**Conflict of Interest** The author declares that he has no conflict of interest.

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