Burrhus Frederic (B.F.) Skinner majored in literature at Hamilton College in New York. He went to New York City in the late 1920s to become a writer, but he wasn't very successful. "I had nothing important to say," he later explained. So he decided to go back to school, and went to Harvard to study psychology, since he had always enjoyed observing animal and human behavior. For the most part, the psychology department there was immersed in introspective psychology, and Skinner found himself more and more a behaviorist. He worked in the lab of an experimental biologist, however, and developed behavioral studies of rats. He had always been a tinkerer, and loved building Rube Goldberg contraptions as a kid; he put that skill to use by designing boxes to automatically reward behavior, such as depressing a lever, pushing a button, and so on. His devices were such an improvement on the existing equipment, they've come to be known as Skinner boxes.

Skinner received his PhD in 1931. In 1936 he took an academic position at the University of Minnesota where he wrote *The Behavior of Organisms* and began his novel *Walden II*, about a commune where behaviorist principles created a new kind of utopia. He also began development of his controversial "baby box," a controlled-environment chamber for infants (his second daughter spent much of her babyhood in one). Pigeons roosted outside his office window at the University of Minnesota, which gave him the idea to use them as experimental subjects -- they became his favorite.

With pigeons, he developed the ideas of "operant conditioning" and "shaping behavior." Unlike Pavlov's "classical conditioning," where an existing behavior (salivating for food) is shaped by associating it with a new stimulus (ringing of a metronome), operant conditioning is the rewarding of a partial behavior or a random act that approaches the desired behavior. Operant conditioning can be used to shape behavior. If the goal is to have a pigeon turn in a circle to the left, a reward is
given for any small movement to the left. When the pigeon catches on to that, the reward is given for larger movements to the left, and so on, until the pigeon has turned a complete circle before getting the reward. Skinner compared this learning with the way children learn to talk -- they are rewarded for making a sound that is sort of like a word until in fact they can say the word. Skinner believed other complicated tasks could be broken down in this way and taught. He even developed teaching machines so students could learn bit by bit, uncovering answers for an immediate "reward." They were quite popular for a while, but fell out of favor. Computer-based self-instruction uses many of the principles of Skinner's technique.

Skinner expressed no interest in understanding the human psyche. He was as strict a behaviorist as John Watson, and he sought only to determine how behavior is caused by external forces. He believed everything we do and are is shaped by our experience of punishment and reward. He believed that the "mind" (as opposed to the brain) and other such subjective phenomena were simply matters of language; they didn't really exist. Skinner was known for making audacious statements on this matter (and others), following in Watson's tradition of being provocative, controversial, and an excellent publicist of his ideas.

After nine years in Minnesota, and three years as head of the psychology department at Indiana University, Skinner returned to Harvard in 1948 as a professor and remained there for the rest of his career. In 1971 he wrote Beyond Freedom and Dignity which suggested the ceding of individual freedoms to further the goals of an ideal society. He died in 1990.

"Education is what survives when what has been learnt has been forgotten."