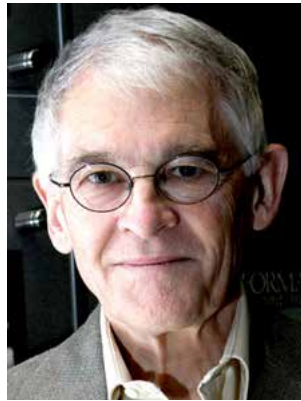


## Behavior Analysis in Service to America: The Earliest Days

Andy Lattal



The association of the science of behavior with the American military goes back at least to Skinner's research during the Second World War (1941-1945) on what he later called "Project Pelican," which was funded by the Office of Science and Development. That project, of course, was his famous research to develop a bomb guided by pigeons taught to keep a battleship target in the crosshairs of a bombsight by pecking at different response recording devices (keys). A photograph of the device appears in Figure 1. After WWII, clinical psychology underwent enormous growth because of the treatment needs of GIs experiencing what we now call post-traumatic stress disorders as well as other problems of adjustment related to wounds received and adjustment to a peaceful life after the combat horrors of that war. Behavior analysis was still emergent at the end of WWII, compared to what it has become today. As a result, there seems to be little of a systematic nature that behavior analysis as such contributed to the efforts of clinical psychology of that time. Skinner, however, continued to receive support from the Navy after the war for his work on schedules of reinforcement, culminating in Ferster and Skinner's (1957) encyclopedic volume, and also to develop teaching machines and programmed instruction.

In the early 1950s, a young experimental psychologist named Joe Brady was invited by psychiatrist David Rioch, the Chair of the Department of Psychiatry, to join him in establishing "a division devoted to applied experimental psychology" (Thompson, 2012) at the Walter Reed Army Medical Center just outside Washington, D. C. in Bethesda, Maryland. Thompson nicely reviewed the many activities and accomplishments that made Brady a central figure in the early development and expansion of behavior analysis. Brady attained the rank of Colonel in the U.S. Army before "retiring" to continue his work- vigorously and until

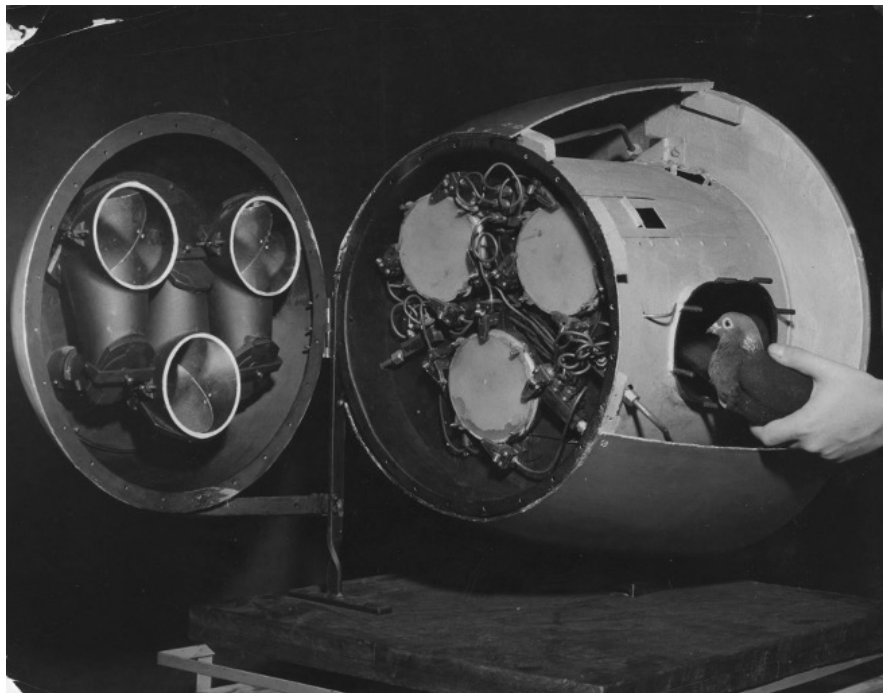


Figure 1. A pigeon ready for placement into a prototype nose cone of a guided bomb described in the text. One pigeon was placed behind each of the three white circles on the unhinged side of the opening. The white coverings are screens on which images of a ship were projected. Pecks on different points of the screen combined to move the nose cone in different directions such that the ship was kept centered on the crosshairs.

his death at age 89 in 2011- at the Institute for Behavioral Studies, which he established while in the military. Brady is shown in Figure 2, toward the end of his life. At the Walter Reed Army Institute of Research, stress and stress management, of the sort seen and expected in armed combat, was a major research focus. Another of Brady's assignments at Walter Reed was to an important role in America's space program. His contributions (see Brady, 2007 for a review) continued long after his retirement from the Army. In fact, at the time of his death, he had the longest continuous funding of his research by NASA of any scientist in its history. As Thompson noted, Brady was instrumental in placing young behavior analysts into research positions in the Army, not only at Walter Reed, but at several of the Army's other labs in other places around the United States. Furthermore, other branches of the service also maintained laboratories conducting basic and applied research on problems of interest to the military and to which experimental psychologists trained in behavior analysis contributed.



Figure 2. Joseph V. Brady sitting in front of a bank of cumulative recorders in a laboratory at Johns Hopkins University, date unknown.

In the applied arena, in 1969, two Walter Reed psychiatrists, Arthur D. Colman and Stewart L. Baker, Jr, described a program they established at Walter Reed for soldiers exhibiting "character and behavior disorders" (Coleman & Baker, 1969). The program was modeled in part on Allyon and Azrin's (1965) then-relatively new token economy treatment program. It incorporated both individual and group psychotherapy-type interventions with "an extrinsic motivational system." Colman and Boren (1969) and Boren and Colman (1970) detailed the latter for a behavior-analytic audience.

### References

- Boren, J. J., & Colman, A. D. (1970). Some experiments on reinforcement principles within a psychiatric ward for delinquent soldiers. *Journal of Applied Behavior Analysis*, 3(1), 29-37. [doi: 10.1901/jaba.1970.3-29](https://doi.org/10.1901/jaba.1970.3-29)
- Brady, J. V. (2007). Behavior analysis in the space age. *The Behavior Analyst Today*, 8(4), 398-412. [doi: http://dx.doi.org/10.1037/h0100640](http://dx.doi.org/10.1037/h0100640)
- Colman, A. D., & Baker, S. L., Jr. (1969). Utilization of an operant conditioning model for the treatment of character and behavior disorders in a military setting. *American Journal of Psychiatry*, 125, 1395-1403. [doi: http://dx.doi.org/10.1176/ajp.125.10.1395](http://dx.doi.org/10.1176/ajp.125.10.1395)
- Colman, A. D., & Boren, J. J. (1969). An information system for measuring patient behavior and its use by staff. *Journal of Applied Behavior Analysis*, 2(3), 207-214. [doi: 10.1901/jaba.1969.2-207](https://doi.org/10.1901/jaba.1969.2-207).
- Ferster, C. B., & Skinner, B. F. (1957). *Schedules of reinforcement*. Appleton Century Crofts.
- Thompson, T. (2012). Joseph V. Brady: Synthesis reunites what analysis has divided. *The Behavior Analyst*, 35(2), 197-208. [doi: 10.1007/BF03392278](https://doi.org/10.1007/BF03392278)